North Iowa Area Community College

2002-2003

General Catalog & Student Handbook

TABLE OF CONTENTS

General Information. 3

Instructional Resources 11

Career Programs

AGRICULTURAL TECHNOLOGY 17

BUSINESS 27

HEALTH 71

REGIONAL HEALTH. 89

PUBLIC SERVICE 93

INDUSTRIAL 97

High School Partnerships. 124

College Transfer Programs 125

Transfer Course Descriptions. 156

Student Handbook. 181

Staff. 229

Index. 239

North Iowa Area Community College
500 College Drive
Mason City, IA 50401
1-888-GO NIACC or (641)422-4245
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General Information

LOCATION AND HISTORY

ACCREDITATION AND APPROVAL

BOARD OF DIRECTORS

MISSION OF THE COLLEGE

INSTITUTIONAL PURPOSES

GENERAL EDUCATION

DEGREE REQUIREMENTS

FACILITIES/SERVICES

NORTH IOWA AREA COMMUNITY COLLEGE FOUNDATION

General Information

LOCATION AND HISTORY

The North Iowa Area Community College (NIACC) is located just off Highway 122, four miles east of downtown Mason City, Iowa, a community of 30,000 which serves as an active business center for northern Iowa and southern Minnesota. The community is served by the Mason City airport and a bus line.

The North Iowa Area Community College District (Area 2) was formed in 1966 in compliance with laws enacted by the 1965 Iowa Legislature, which provided for the delivery of postsecondary education in Iowa.

The NIACC Board of Directors assumed operation of Mason City Junior College, which was the first public two-year college in Iowa and one of the earliest in the country having been established in 1918 by the Mason City Independent School District.

Construction of the present campus began in 1970. A campus directory can be found in the back of this catalog.

ACCREDITATION AND APPROVAL

North Iowa Area Community College has been accredited since 1919 by The Higher Learning Commission of the North Central Association, 30 North LaSalle Street, Suite 2400, Chicago, IL 60602, (800)621-7440.

BOARD OF DIRECTORS

Kevin Kolbet, Realtor, Osage, Board President, 1986-2004

Colin Robinson, President - First Citizens National Bank, Charles City, Board Vice President, 1997-2003

Jean Torgeson, Nurse, Mason City Clinic, Manly, 2001-2004

Terry Cobb, Vice President, Marketing and Customer Services, Team Quest Corp., Clear Lake, 1998-2003

Maury Gulbranson, Director of Manufacturing, Omnium, Hampton, 1999-2002

Rosie Hussey, Executive Director, Girl Scouts, Mason City, 1992-2004

Karen Knudtson, Realtor, Mason City, 1989-2002

David Steffens, Jr., President, Norsemen Trucking, Inc., Lake Mills, 2000-2003

Linda Upmeyer, Nurse Practitioner, Mercy Medical Center - North Iowa, Garner, 1990-2002

Sandra Gobeli, Secretary and Treasurer, North Iowa Area Community College

MISSION OF THE COLLEGE

Philosophy

North Iowa Area Community College believes that education, which has as its overriding goal the optimum development of all human potential, is the foundation of a democratic society.

Mission Statement

The mission of the North Iowa Area Community College is to enhance the quality of life for people of North Iowa through comprehensive educational opportunities, progressive partnerships, exemplary service, and responsive leadership.

INSTITUTIONAL PURPOSES

Within the human, financial, and physical resources entrusted to the North Iowa Area Community College, the institution strives to achieve the following goals:

- Enhance the human potential of students by assisting them to acquire the knowledge and tools necessary to understand and enrich their environment and contribute to their communities in a positive way. This becomes manifest through the development of general education skills and abilities.
- Ensure that all citizens of the North Iowa region, regardless of their educational and socioeconomic backgrounds, geographic placement, or needs for special assistance, have the opportunity and the necessary support to take advantage of post-secondary educational programs and other services offered by the College.
- Enable individuals to complete the first two years of a baccalaureate program and, upon successful completion, to achieve efficient and effective transfer to senior colleges.
- Ensure that individuals have opportunities to prepare themselves for employment in occupations in demand in a global society.
- Ensure that all individuals have opportunities to continue learning throughout their lifetimes.
- Promote a strong economy by engaging in activities which develop and maintain a skilled and educated workforce and which promote and support entrepreneurial activity.
- Extend the reach of College resources through progressive partnerships with agencies and entities in communities served by the College.
- Build community by promoting understanding, appreciation, cooperation, and communication among diverse individuals.
- Instill confidence and pride in all who come into contact with the College by fostering a commitment to excellence in all College endeavors.

GENERAL EDUCATION

Philosophy

Education is the foundation of a democratic society. General education engages students in an ongoing endeavor to acquire the knowledge and tools necessary to understand their environment and contribute to their communities.

Definition

A collection of diverse experiences in learning that teach generalized skills in communication, critical analysis, research, global awareness, interpersonal relations, aesthetics, math, and technology and survey subject matter to allow for applications of this learning in the classroom and community.

General Education Program

The General Education program at NIACC consists of eight learning objectives:

1. Research. Students locate and use materials from appropriate sources. Students use a variety of informal research skills to provide understanding of their studies, reason for their judgments, and support for their arguments.
2. Critical Thinking. Students solve, evaluate, analyze problems; draw conclusions; and synthesize. Students use principles as appropriate to address issues or solve problems.
3. Communication. Students possess appropriate reading, writing, and speaking skills to interact with others and express themselves.
4. Global Awareness. Students understand cultural, linguistic, historic, geographic, and social differences. Students become familiar with other cultures to foster cooperation, understanding, and appreciation.
5. Interpersonal Skills. Students use empathy, teamwork, negotiation, leadership, tolerance, group problem solving and patience. Students develop skills to work cooperatively with others.
6. Aesthetics. Students understand and use criteria for evaluating the subjective and sensory.
7. Technological Skills. Students understand the relationships between theory and practice and use technology.
8. Quantitative Skills. Students demonstrate functional mathematical competence and employ quantitative reasoning.

DEGREE REQUIREMENTS

Associate Degrees

Associate in Arts

Purposes of the degree:

1. Provide a degree goal for students who choose to follow a course of study which is specifically designed for transfer to a baccalaureate degree program.
2. Provide the essential general education, grade, and semester hour requirements for upper division status at most senior colleges and universities.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of work consisting of courses whose principal design is for a baccalaureate program. Up to 16 semester hours of career courses (courses with a 90's prefix) can be used as elective credit. Developmental courses (course number has a suffix less than 100) cannot be used to meet this requirement.
2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours.
3. A minimum overall cumulative grade point average of 2.00 (C) in cluding a 2.00 (C) cumulative grade point average in all course work at NIACC. Developmental courses are not used in calculating the cumulative grade point average for graduation.
4. Completion of the following General Education Core with a minimum of 40 semester hours:

Communications ..... 8 s.h.

This requirement can be satisfied by baccalaureate-oriented communications or speech courses with a minimum of two courses in English composition.

Social Sciences ..... 8 s.h.

Humanities ..... 8 s.h.

Performance courses such as vocal and instrumental music may satisfy no more than four hours of this requirement.

Natural Sciences* ..... 8 s.h.

(including at least one math and at least one science course)

Distributed Requirement ..... 8 s.h.

(to be taken from among the four divisions above)

*It is recommended that students take a minimum of four semester hours of laboratory science.

5. Completion of the Academic Profile examination during the student's final semester prior to graduation.

Associate in Science

The purpose of the Associate in Science degree is to provide a degree goal for students who choose to follow a Natural Science degree program.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of work consisting of courses whose principal design is for a baccalaureate program. Up to 16 semester hours of career courses (courses with a 90's prefix) can be used as elective credit. Developmental courses (course number has a suffix less than 100) cannot be used to meet this requirement.

2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours.

3. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC. Developmental courses are not used in calculating the cumulative grade point average for graduation.

4. Completion of the following General Education Core with a minimum of 37 semester hours:

   Communications .....8 s.h.

   Social Sciences/Humanities .....9 s.h.

   Natural Sciences.....20 s.h.
   (must include at least one math and at least one science course)

5. Completion of the Academic Profile examination during the student's final semester prior to graduation.

Associate in Science - Business

The purpose of the Associate in Science - Business degree is to provide a degree goal for students who choose to follow a course of study designed to give the student the option of obtaining employment in business or transferring to a four-year institution. Students who know they wish to pursue a four-year degree and want to meet general education requirements of transfer institutions should pursue the A.A. Degree.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of work consisting of courses whose principal design is for a baccalaureate program. Up to 16 semester hours of career courses (courses with a 90's prefix) can be used as elective credit. Developmental courses (course number has a suffix less than 100) cannot be used to meet this requirement.

2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours.

3. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC. Developmental courses are not used in calculating the cumulative grade point average for graduation.

4. Completion of a minimum of 30 semester hours in business courses designated with the prefix 15.

5. Completion of the following General Education Core:

   Communications .....8 s.h.

This requirement can be satisfied by baccalaureate-oriented communications or speech courses with a minimum of two courses in English Composition.

   Social Sciences and/or Humanities .....9 s.h.

   Natural Sciences.....3 s.h.

6. Completion of the Academic Profile examination during the student's final semester prior to graduation.

Associate in Science - Medical Secretary

The purpose of the degree is to provide a degree goal for students who choose to follow a course of study designed to give the student the option of obtaining employment as a Medical Secretary or transferring to a four-year institution. Students who know they wish to pursue a four-year degree and want to meet general education requirements of transfer institutions should pursue the A.A. Degree.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of work consisting of courses whose principal design is for a baccalaureate program. Developmental courses (course number has a suffix less than 100) cannot be used to meet this requirement.

2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours.

3. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC. Developmental courses are not used in calculating the cumulative grade point average for graduation.

4. Completion of prescribed required two-year Medical Secretary curriculum.

5. Completion of the Academic Profile examination during the student's final semester prior to graduation.

Associate in Applied Science

Purposes of the degree include:

1. Provide a degree goal for students who choose to follow a course of study which is specifically designed to lead to employment upon completion of two years of study.
2. Provide the student with an entry skill level appropriate to the career for which he/she has been preparing.
3. Provide the student with general education skills: communications, social science and/or humanities, and math and/or science.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of a prescribed two-year career curriculum. Developmental courses (course number has a suffix less than 100) cannot be used to meet this requirement.
2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours, unless specified otherwise by a program's accrediting agency.
3. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC. Developmental courses are not used in calculating the cumulative grade point average for graduation.
5. Completion of the Academic Profile examination during the student's final semester prior to graduation.

Associate in General Studies

Purposes of the degree include:

1. Provide a degree goal for students who choose to follow an individualized course of study which is not specifically designed for transfer to a baccalaureate degree program.
2. Provide an attainable associate degree for students who complete career programs of less than two years duration.
3. Provide an associate degree for career education students who wish to enroll in selected courses to reach a personal career objective.
4. Provide a degree goal for students whose educational goals shift after initial commitment has been made.
5. Provide a flexible associate degree for students who attend college on a part-time or other non traditional basis.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of work designed to meet the personal or career goals of each individual student. Developmental courses (course number has a suffix less than 100) cannot be used to meet this requirement.
2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours.
3. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC. Developmental courses are not used in calculating the cumulative grade point average for graduation.

Diplomas

This recognition is granted to a person who has completed at least thirty (30) semester hours of credit.

Program Diploma

Diplomas are awarded for the following curricula. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC. Developmental courses are not used in calculating the cumulative grade point average for graduation.

Accounting with Computers
Automotive Service
Building Trades
Climate Control Mechanics
General Secretary
General Machinist
Legal Secretary
Marketing and Sales
Medical Assistant
Medical Secretary
Medical Transcriptionist
Practical Nursing
Supervision & Management

General Studies Diploma

The purpose of the diploma is to provide an achievement recognition:

1. For students who may choose to follow an individualized course of study which is not specifically designed for transfer to a degree program.
2. For career education students who wish to enroll in selected courses to reach a personal career objective.

3. For students who attend college on a part-time or other nontraditional basis.

Requirements for the diploma include:

1. Completion of at least thirty (30) semester hours of career courses designed to meet the personal or career goals of each individual student.
2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours.
3. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC.

Certificates
Certificates of completion are awarded to indicate that a student has satisfactorily completed a program of instruction other than those indicated previously. Certificates are usually issued to students upon completion of a short-term program of study with a 2.00 (C) grade point average.

FACILITIES/SERVICES

The main campus in Mason City consists of contemporary, attractive facilities located around lakes in a park-like setting. The 500-acre campus provides facilities for instructional, administrative, recreational, and community activities. Up-to-date laboratories offer the latest in technological equipment. Adequate parking is available without charge for students and staff members. Residence halls and apartments are situated on a site adjoining the campus to the north.

Agriculture Technology Lab

The NIACC farm lab consists of a cow/calf operation, farrow/breeding facility, pole barn, swine confinement, pasture, and no-till demonstration fields.

Athletic/Recreational Fields

Baseball, softball, football, soccer, and recreational fields are located on the east edge of the campus.

Conference Center

The Muse-Norris Conference Center, located east of the Auditorium and Fine Arts area, serves NIACC and community groups for education-related meetings and activities. A multipurpose recreational area is found on the lower level.

Entrepreneurial Training and Support

The John Pappajohn Business and Entrepreneurial Center provides entrepreneurial training and business support to aspiring entrepreneurs, small business owners, and individuals working in high-growth industries. The comprehensive programs are designed to increase successful new business starts, reduce the high failure rate of young ventures, and strengthen business growth opportunities.

For more information, call (641) 422-4111.

Student Learning Center

The Student Learning Center, located in Beem Center, offers opportunities to all college students and potential students who wish to:

1. Improve their skills in reading, writing, math, and study techniques (for example, note-taking, test-taking, time management) either as a brush-up before enrollment or while participating in a NIACC course or testing program.
2. Gain new skills by participating in an individualized course such as high school credit.
3. Validate their skills by participating in a testing program such as GED, ICBE, CLEP.

For further information, students should contact their counselor, the Learning Center staff, or refer to the Instructional Resources section of this catalog.

Laboratories

The attractive facilities available in the Natural Science Division area are considered unusually complete for a community college. The math lab, in addition to the equipment and layout of the physical and biological science laboratory areas, provides for effective learning opportunities. General computer labs are contained within the Natural Science area.

The laboratories for career education contain the latest equipment and facilities for proper instruction in these areas.

Computer labs are available throughout campus (including the residence halls) and are available to all students to use for instructional application, checking e-mail, or web browsing. Lab attendants are on staff to assist students.

The Business Division has comprehensive computer labs with personal computers and dictation equipment. Students have access to this equipment days and evenings, Monday through Saturday.

Students also have access to word processing computers in the Humanities Division's Writer's Workbench Lab, which is housed next to the Student Learning Center in Beem Center. While all students are free to enter, analyze, and edit their documents, students enrolled in most writing courses are encouraged to use the Writer's Workbench facilities.

Library

Conveniently located in the Clifford H. Beem Center, the NIACC Library serves the College as a vital part of the learning experience. Built in 1977, it is an attractive facility providing seating for 150 people. Conference rooms provide areas for group study. Collections include books, reference materials, and nonbook media in the forms of audiotapes, videotapes, films, filmstrips, slides, and electronic resources. The Library subscribes to state and national newspapers as well as

area papers; periodical subscriptions cover a broad spectrum of subjects to meet user needs. Materials are coordinated with the curriculum, supporting the vocational and the academic. In addition, a collection of contemporary fiction is maintained. The Library's online catalog makes it easy to locate resources. For more information on the Library and its services, see page 13.

North Iowa Community Auditorium

A variety of opportunities are available to NIACC students through the North Iowa Community Auditorium, a modern 1167-seat facility located on the NIACC campus. Students perform regularly on stage through the NIACC vocal and instrumental music departments, as well as the theatre department. In addition to student and community shows, performances by nationally and internationally known artists are available to NIACC students, often at reduced prices.

Before the show or between classes, students may browse through the Auditorium Gallery where they will see various exhibits created by famous artists and NIACC art faculty and students.

OK House

The Oikoumene Religious Center (OK House) is an ecumenical religious organization serving postsecondary students in North Central Iowa. The OK House, located just across from the residence hall, is open daily for students to drop in for social events, listening and referral services, recreation, counseling, study, support groups, contemporary worship experiences, and a serene environment. The OK House is supported by area churches.

Small Business Assistance

The Small Business Development Center offers assistance to small business owners or would-be entrepreneurs in all areas of business management, including sources of capital, loan applications, marketing strategies, and financial planning and analysis. Assistance includes counseling, training, and information. Services are either free or low cost.

The SBDC is affiliated with Iowa State University and the U.S. Small Business Administration under Agreement No. 5-7770-0016-14.

For more information, call (641) 422-4342.

Student Activity Center

Located in the heart of campus, the Student Activity Center offers a classy, comfortable atmosphere for studying, dining, lounging, and visiting with classmates and instructors. Meals and snacks may be obtained in the cafeteria at a very nominal cost between 7 a.m. - 3 p.m., Monday through Friday. Vending machines are also available.

On-Campus Housing

The NIACC Dormitory Corporation operates a nonprofit residence hall which accommodates up to 475 single men and women on a site adjoining the campus to the north. The residence hall features a commons area, complete with dining, recreational, computer, and study facilities. NIACC student housing also includes lakeside apartments.

Tobacco-Free Campus

Because the College wishes to provide a safe and healthy environment for students and staff members, the use of tobacco products is prohibited in College facilities.

Workforce Development Assistance

Iowa Workforce Development is a comprehensive system of employment and training programs. Whether you are a student, job seeker, career changer or employer, we have resources to assist you.

Students, job seekers, and career changers benefit from:

- Career exploration resources that assist you in making sound training and career decisions.
- Programs that help defray training costs.
- Job-seeking tools and information.
- Labor exchange services to connect business and job seekers.

Businesses

- Utilize labor exchange services to find quality employees.
- Gain information about tax benefits attached to specialized job seekers.
- Research labor market information to attract and retain quality employees.
- Access workplace training programs including Iowa New Jobs Training Program or the Iowa Jobs Training Program designed to help lower the cost of training employees.

There are core services available at no charge. Fees or eligibility requirements apply for some services. Iowa Workforce Development, "providing quality customer-driven services that support prosperity, productivity, and safety for Iowans."

For more information, call (641)422-1524.

NORTH IOWA AREA COMMUNITY COLLEGE FOUNDATION

The North Iowa Area Community College Foundation was incorporated in 1968 as the official fund-raising arm of the College. It is recognized by the Internal Revenue Service as a 501(c)(3) not-for-profit, tax-exempt corporation operating for the exclusive benefit of the College. It is governed by a 17-member Board of Directors who serve in a noncompensated capacity.

The Foundation is authorized to solicit and receive gifts of cash, property, equipment and/or bequests and to purchase or lease property for the benefit of the College.

An annual report is distributed to all donors providing accountability to investors. NIACC Foundation books and records are audited annually.

OFFICE HOURS

The administrative offices of the North Iowa Area Community College are open Monday through Friday from 7:45 a.m. - 4:15 p.m.

NONDISCRIMINATION POLICY

North Iowa Area Community College is committed to the policy that all persons shall have access to its programs, facilities, and employment without discrimination based upon race, religion, color, creed, gender, national origin, marital status, age, physical or mental disability. Any person having concerns with respect to rights under Section 504 of the Rehabilitation Act of 1973, and Title IX of the Education Amendments of 1972, should call the Vice President for Student Services (students) at (641)422-4003 or the Director of Human Resources (employees) at (641)422-4211.

NOTE

This catalog is published for informational purposes and should not be construed as the basis of a contract between a student and North Iowa Area Community College. Every effort is made to provide information that is accurate at the time the catalog is prepared. However, information concerning regulations, policies, fees, curricula, courses, and other matters contained in this catalog is subject to change at any time during the period for which the catalog is in effect.

For more information about opportunities at North Iowa Area Community College, call the Admissions Office at (641)422-4245 or 1-888-GO NIACC (466-4222), ext. 4245.
Web Site: www.niacc.edu
E-mail: request@niacc.edu

Instructional Resources

DEVELOPMENTAL EDUCATION DIVISION

EXPERIENTIAL LEARNING

STUDENT LEARNING CENTER

LEARNING SERVICES

Instructional Resources

DEVELOPMENTAL EDUCATION DIVISION

The mission of the Developmental Education Division is to provide access to education for the citizens of North Iowa and to support students' academic success regardless of their educational backgrounds.

This support includes assessment and developmentally appropriate instruction.

Assessment/Testing

* American College Testing Program (ACT)
* College Level Examination Program (CLEP)
* Test Proctoring: External/Internal
* Police Dispatcher Recertification
* General Educational Development (GED)
  - —GED Testing Site: NIACC Campus—Beem Center Room 103; five tests available in writing and reading skills, social studies, sciences, and mathematics.
  - —Scholarship: For eligible GED candidates enrolling at NIACC each fall semester.

Requirements of GED testing procedures/policies clarified by the chief GED examiner.

Basic Skills

Open entrance/open exit classes for adults with or without a high school diploma.

* Adult Basic Education (ABE)
* General Educational Development (GED): Adults study basic reading, writing, and mathematics. Adults may also prepare for the GED tests which lead to the attainment of a high school equivalency diploma. GED requirements are clarified by the chief GED examiner.

Literacy/Adult Basic Education

* Reading instruction for adult nonreaders.
* ABE/Special Learning Needs: Persons functioning below ninth grade level, i.e., Opportunity Village, county care facilities, and sheltered workshops are taught basic academic and life skills.
* English as a Second Language (ESL): Instruction is provided for non-native speakers in speaking, reading, and writing the English language.

EXPERIENTIAL LEARNING

Cooperative Education Program

North Iowa Area Community College provides an educational program in which a student has the opportunity to blend theory and practice by combining classroom learning with planned and supervised field experience. Cooperative Education is a concept which incorporates academic work with employment experience to provide a more meaningful and valuable total experience for the college student. The goal is to afford students the opportunity to enhance their academic knowledge, personal development, and professional preparation.

Credit is granted for the field experience in Cooperative Education. Students may earn up to 5 credits per term and apply 12 credits toward an associate degree. Appropriateness of learning objectives is an essential feature in the approval for credit process. For further information, contact the Student Services Center at 641-422-4207.

Individualized Competency-Based Education Program (ICBE)

The Individualized Competency-Based Education (ICBE) program is an individually tailored, student-designed program leading to an Associate Degree. The ICBE program is designed for adults who (1) have acquired college-level learning outside the college setting; (2) desire assessment of this learning for credit equivalence; and (3) may desire a flexible time schedule for completion of their educational goals.

The program is designed to meet the specialized educational needs of adults who have either (1) a clear direction or desire for designing their own educational program, or (2) want opportunities for life or career development or change, or (3) prefer or need the nontraditional options for their area of study.

The ICBE degree program is an alternative mode of education for adults who have had learning experiences from employment, volunteer work, noncollege education, in-service training, or other life experiences.

STUDENT LEARNING CENTER

The Student Learning Center, located in Beem Center, offers opportunities to all college students who wish to:

1. Improve the following:
   - Study skills
   - Math skills
   - Writing skills
   - Reading strategies
   - Test-taking skills
   - Note-taking skills
   - Time management skills
2. Schedule individual appointments for one-on-one tutoring.
3. Drop in for tutoring in NIACC class work or to study.
4. Study in a helping environment.

LEARNING SERVICES

Library

The role of the NI ACC Li brary is to sup port the cur ricu-lum and to pro vide re sources and serv ices to meet the needs of stu dents, fac ulty, and area resi dents.

The col lec tion con tains 29,000 gen eral vol umes, 9,700 nonbook media items, and 6,000 electronic books. Sub scrip tions in clude 8 na tional news pa pers, 42 NIAD area newspapers, and 370 periodicals with ten-year hold ings of most ti tles. Also avail able are files con tain-ing up- to- date pam phlets, ca reer in for ma tion, and so-cial con cerns ma te ri als.

The li brary is open 60 hours per week, in clud ing 4 eve-nings. A pro fes sional staff of one full- time li brar ian and one part- time li brar ian, as sisted by three full- time as sis-tants, and six stu dent as sis tants pro vide serv ice for all pa trons. The li brary staff will pro vide as sis tance at any time. Li brary ori en ta tion ses sions are of fered at the be-gin ning of each se mes ter to in form stu dents of li brary re sources, poli cies, and pro ce dures. An on line ver sion of the Powerpoint pre sen ta tion is also avail able from the li brary web page. A li brary hand book in print and on line is also avail able. A stu dent ID card is re quired to check out ma te ri als. ID's are avail able in Stu dent Serv ices.

A word-processing com puter, a type writer, and vari ous types of me dia equip ment are avail able for use in the li-brary. Copy ing serv ices are pro vided at a mini mal cost.

The library is con nected by com puter to over 20,000 li-braries across the country via the OCLC interlibrary loan system. This brings the libraries of the United States to NI ACC stu dents. A num ber of elec tronic da ta-bases, in clud ing a full-text pe ri od i cal da ta base, news-papers, electronic books, and encyclopedias on the World Wide Web, can be ac cessed through the li brary's web page. Many more CD-ROM da ta bases are also available. Cooperative agreements with other Iowa community colleges and area libraries provide ad di-tional sources of in for ma tion.

The library con tin ues to im ple ment the utili za tion of new tech nolo gies to meet the in for ma tion needs of NIACC stu dents. The li brary uses an on line li brary cata log and cir cu la tion sys tem to pro vide easy ac cess to re sources. Six Internet workstations are available for using the World Wide Web. Two CD-ROM workstations are also avail able.

The Iowa Communications Network (ICN)

NI ACC is proud to be a part of the ICN, a state wide two-way in ter ac tive video/audio/data net work with over 700 elec tronic class rooms, con nect ing every county in the state. NI ACC has four in ter ac tive tele vi sion class rooms at the main cam pus in Ma son City and one at the NI ACC Charles City Cen ter. In ad di tion, there are ICN class-rooms at nearly all area high schools. Stu dents can par-ticipate in a variety of college classes at the remote sites, com mu ni cat ing with the in struc tor and other stu-dents via two- way video and au dio. The ICN also pro-vides Internet and data ser vices to the col lege.

TECHNOLOGY SERVICES

The Technology Services Division provides technology- related sup port to the cam pus in the ar eas of com puter serv ices, me dia serv ices, and tele com mu-ni ca tions. Tech nol ogy Serv ices staff mem bers set up and main tain the com put ers in the com puter labs, data net works, Inter net, and com puter ap pli ca tions. In ad di-tion, staff members support classroom presentation equip ment such as over head pro jec tors, video pro jec-tors, large screen computer displays, and interactive tele vi sion class rooms (ICN). Other pro duc tion serv ices, such as overhead transparencies, electronic pub lish-ing, video production, photography, satellite down-linking serv ices, and Inter net Web page de vel op-ment are also pro vided by the di vi sion.

Quotable Quote:

Whoever wants to reach a distant goal must take many small steps.

-Helmut Schmidt

Career Programs

AGRICULTURAL TECHNOLOGY

BUSINESS

HEALTH

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INDUSTRIAL TECHNOLOGY

AGRICULTURAL TECHNOLOGY

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Program Options for Students Enrolled in Agricultural Technology at NIACC

A.A.S. Degree: Associate in Applied Science

Agricultural Operations Management

Agricultural Sales & Service

Agricultural Marketing & Finance

E-Agribusiness

The Agricultural Technology Division at NIACC recognizes that new and evolving technologies, along with improved agricultural business methods and new farming systems have a significant impact on how agricultural producers, service providers, processors, and manufacturers do business. As we prepare students for the challenges of the twenty-first century, we have developed a comprehensive curriculum that addresses the needs of students entering the agricultural job market regarding technology adoption, profitable production systems, and sound business management. The agricultural curriculum for all four degree programs provides a combination of general and technical education core classes emphasizing science, technology, communications, business, and computer skills. You may select any one of the four specific technology areas—operations management, sales & service, marketing & finance, E-agribusiness, and be assured that quality student service continues from recruitment through job placement and life long learning.

Students completing the five-term Agricultural Operations Management degree program or Agricultural Sales & Service degree program may elect to have a livestock production specialist or crop production specialist designation attached to their degree if they have specialized that course of study with 10 hours of approved elective course work in livestock or crop production. *Approval granted upon joint Ag staff members' acceptance of the Agricultural Technology Degree curriculum plan.*

A.G.S. Degree: Associate in General Studies

Diploma: Agricultural Technology

Students may receive an Agricultural Technology diploma by completing 32 semester hours of approved course work. The diploma may carry an agricultural specialty designation in crop production, animal science, or Ag business management. (This is contingent upon completion of 22 hours of Ag curriculum core courses and 10 approved elective credits related to the area of specialty.) *Approval granted upon joint Ag staff members' acceptance of a curriculum plan.*

NIACC's A.A. or A.S. Degree

Ag Transfer

The range of career opportunities and majors in agriculture is so great that it is impossible to list a suggested curriculum for each. The catalog for Iowa State University states: Requirements for any four-year curriculum are at least as extensive as those shown below.

Communication Skills I & II	8 s.h.
Mathematics, Chemistry, Computer Science, Physics, and Statistics	13 s.h.
Biological Principles, Zoology, Botany, Microbiology, Genetics	6 s.h.
Economics, Government, Psychology, Sociology (Economics, Government required of most curriculums)	6 s.h.
Art, History, Literature, Music, Philosophy	6 s.h.

Since there is a wide variation in the required courses for the various curriculums in agriculture, it is the responsibility of each student, in consultation with his/her advisor or counselor, to determine the specific courses required for the particular curriculum or major in which the student is interested.

Iowa State University

NIACC and Iowa State University's Department of Agricultural Education and Studies have teamed up to design a unique program in agriculture. The first two years of the program can be taken at NIACC and the final two years are completed at Iowa State University. Students completing the NIACC program are awarded an associate in applied science degree in Agricultural Operations. Those continuing on to complete the two-year program at ISU will receive a bachelor of science degree in Agricultural Studies. Note: Iowa State University College of Agriculture students must certify English proficiency by obtaining a "C" or better in written and verbal communication courses. Students completing the prescribed courses will fulfill the College of Agriculture's intensive requirements in ethics, problem solving, communication, and environment.

The following courses have been articulated with Iowa State University's College of Agriculture.

Animal Science I	3 s.h.
Animal Science II	3 s.h.
Computer Applications for Agriculture	3 s.h.
Crop Science I	3 s.h.
Crop Science II	3 s.h.
Intro to Ag Business	3 s.h.

NIACC Farm Lab

The NIACC Farm Lab's primary mission is to transfer information assimilated from agricultural demonstration projects conducted within industry, institutional partners, and students. The NIACC Farm Lab plans and conducts demonstrations and educational programs that exhibit systems which efficiently manage agricultural resources, enhance rural profitability, protect environments, and demonstrate new and promising technologies.

During President Bill Clinton's visit to North Iowa Area Community College, he praised NIACC's agricultural programs "...technology and information...are transforming everything, including agriculture..." "I just came from a demonstration...of a computer program using satellite information that tells farmers the difference in their soil composition, their average yields, and gives them all kinds of information...they never could have got ten before. That is how far we have come..." The President praised NIACC's role as a community college educating students and providing information to the community by saying: "North Iowa Area Community College ...is a symbol for what I think we ought to be doing in America." "NIACC is:...community-based, nonbureaucratic, sensitive to the needs of its customers...a place where everybody can come...changing all the time as the economy changes and as the needs of the community and students change...a community institution that will take not only the student, but the community, into the future."

More than 300 acres of crop land, plus livestock production facilities, are dedicated to the NIACC Farm Lab for student education. These resources are being utilized to demonstrate advanced cropping systems, agricultural technologies, and livestock production. The project is made possible through industry partnerships. More than 20 agricultural corporations are partners with NIACC providing opportunities for NIACC's agricultural technology students to be directly involved in the experiments and demonstrations. Agricultural Technology students are the beneficiaries of these partnerships which bring cutting edge technology, new information, and job opportunities.

Educational focus areas include: no-till farming systems, GPS/GIS, site specific farming technology, transgenic crop demonstrations, specialty crops utilization, remote sensing technology, manure management, swine reproduction and artificial insemination technology, swine and beef genetic evaluation, livestock nutrition studies, beef cattle embryo transfer, and electronic livestock management technologies.

NIACC is dedicated to providing students with learning opportunities related to the latest technology used in livestock production. The Agriculture Division has established the Swine A.I. Center which houses A.I. quality boars, from which students can learn to collect, process, market semen and develop genetic lines of show pigs. Students are also involved in the breeding, development, management, preparation, and marketing of show pigs, club calves, and breeding cattle. The Farm Lab routinely uses the Heat Watch system (electronic estrus detection) for identifying cows in heat, and flushes several donor cows each year for embryo transfer.

Agricultural technology at NIACC begins with one year of general and technical education core classes emphasizing science, communication, and business. You may then select one of the many program and specialty options leading to graduation, transfer, diploma, or work.

Important components to your education are two, eight-week employment experiences built into the curriculum. These experiences allow students to earn and learn; the work experience is invaluable in securing employment following graduation.

Program Requirements

Entrance

Due to the highly technical nature of these programs and NIACC's commitment to giving students the best possible opportunity for success, you will be scheduled for advisement sessions to discuss your career plans, educational background, transcripts, test scores, life experiences, and motivation which will aid us in designing a positive educational experience for you. Prior to first-time class registration, students desiring unconditional admission to the Agricultural Technology Program will be assessed for math, science, reading, and writing competency by one or more of the following:

1. ACT
2. NIACC assessment using (COMPASS) tests for basic education skills OR
3. Acceptance into an honors program of study

Students who are unable to demonstrate general education competencies in math, science, reading, or writing areas will be required to develop an educational enhancement plan and may want to consider the option of additional course work in the area of deficiency, prior to graduation.

Graduation

During the semester applying for graduation, students will:

1. Be assessed for minimum general education competency by completing the General Education (college English, math, computer, communications, and science) Proficiency Exam or approved alternative evaluation.
2. Demonstrate agricultural skill proficiencies by completing an Agricultural Technology exit exam consisting of oral and written components.
   OR
   Submit a capstone project.

Agricultural Operations Management

The Agricultural Operations Management curriculum provides for the study of agriculture with emphasis on crop, soil, and animal sciences supported with a strong basis of economic, management, and human relations skills. The program is designed to provide future farmers, farm managers, and production career students the basic and technical training necessary for success. The program's graduates receive an associate in applied science degree.

SUGGESTED SCHEDULE

This is a possible sequence of courses. A list of course corequisites and prerequisites will be prepared to allow the student to determine their own sequence of courses to complete the program.

First Term - Fall

30:101	Communication Skills I	4 s.h.
70:112	Animal Science I	3 s.h.
90:182	Computer Applications for Ag	3 s.h.
90:186	Soil Science	3 s.h.
90:264	Intro to Farm Operation	3 s.h.
		16 s.h.

Second Term - Spring

70:212	Animal Science II	3 s.h.
90:160	Crop Science I	3 s.h.
90:183	Ag Economics	3 s.h.
92:151	Ag Business Accounting	3 s.h.
	General Ed. Elective	3 s.h.
		15 s.h.

Third Term - Summer

90:161	Crop Science II	3 s.h.
90:267	Precision Ag Technology	2 s.h.
92:260	Advanced Computer Applications	2 s.h.
		7 s.h.

Fourth Term - Fall

89:100	Cooperative Work Experience	4 s.h.
89:150	Employment Strategies	1 s.h.
90:185	Commodity Marketing	2 s.h.
	Math Elective	minimum of 2 s.h.
	Approved Ag Electives	6 s.h.
		15 s.h.

Fifth Term - Spring

89:100	Cooperative Work Experience	4 s.h.
90:285	Ag Finance Management	2 s.h.
92:272	Employment Relations & Business Decisions	2 s.h.
92:273	Equipment Maintenance and Management	2 s.h.
	Approved Ag Electives	4 s.h.
		14 s.h.
	Total Hours	**67 s.h.**

Agricultural Sales and Service

The Agricultural Sales and Service curriculum is designed to prepare individuals who seek employment in a business or industry providing supplies and/or services for agriculture. It provides a sound agricultural foundation and develops strengths in the areas of sales manship, business management, human relations skills, and information management. The program leads to an associate in applied science degree.

SUGGESTED SCHEDULE

This is a possible sequence of courses. A list of course corequisites and prerequisites will be prepared to allow the students to determine their own sequence of courses to complete the program.

First Term - Fall

30:101	Communication Skills I	4 s.h.
70:112	Animal Science I	3 s.h.
90:170	Intro to Ag Business	3 s.h.
90:182	Computer Applications for Ag	3 s.h.
90:186	Soil Science	3 s.h.
		16 s.h.

Second Term - Spring

70:212	Animal Science II	3 s.h.
90:160	Crop Science I	3 s.h.
90:183	Ag Economics	3 s.h.
92:151	Ag Business Accounting	3 s.h.
	General Ed. Electives	3 s.h.
		15 s.h.

Third Term - Summer

90:161	Crop Science II	3 s.h.
90:267	Precision Ag Technologies	2 s.h.
92:260	Advanced Computer Applications	2 s.h.
		7 s.h.

Fourth Term - Fall

89:100	Cooperative Work Experience	4 s.h.
89:150	Employment Strategies	1 s.h.
90:185	Commodity Marketing	2 s.h.
	Math Elective	minimum of 2 s.h.
	Approved Ag Electives	6 s.h.
		15 s.h.

Fifth Term - Spring

89:100	Cooperative Work Experience	4 s.h.
90:189	Salesmanship/Advertising	2 s.h.
90:285	Ag Finance Management	2 s.h.
92:272	Employment Relations & Business Decisions	2 s.h.
	Approved Ag Electives	4 s.h.
		14 s.h.
	Total Hours	**67 s.h.**

Agricultural Marketing and Finance

The Agricultural Marketing and Finance curriculum provides for the study of agriculture with emphasis on business management, agricultural marketing, finance economics, information management, and human relations skills. It is supported with a strong basic agriculture technology core of instruction. Successful graduates will receive an associate in applied science degree and may have the option of continuing their education at a four-year institution.

SUGGESTED SCHEDULE

This is a possible sequence of courses. A list of course corequisites and prerequisites will be prepared to allow the student to determine their own sequence of courses to complete the program.

First Term - Fall

30:101	Communication Skills I	4 s.h.
70:112	Animal Science I	3 s.h.
90:170	Intro to Ag Business	3 s.h.
90:182	Computer Applications for Ag	3 s.h.
90:186	Soil Science	3 s.h.
		16 s.h.

Second Term - Spring

15:150	Accounting Principles I	3 s.h.
30:102	Communication Skills II	4 s.h.
70:212	Animal Science II	3 s.h.
90:160	Crop Science I	3 s.h.
90:183	Ag Economics	3 s.h.
		16 s.h.

Third Term - Summer

90:161	Crop Science II	3 s.h.
90:267	Precision Ag Technologies	2 s.h.
92:260	Advanced Computer Applications	2 s.h.
		7 s.h.

Fourth Term - Fall

15:120	Business Law I	3 s.h.
15:151	Accounting Principles II	3 s.h.
80:134	Microeconomics	3 s.h.
89:150	Employment Strategies	1 s.h.
90:185	Commodity Marketing	2 s.h.
	Ag Electives	2 s.h.
		14 s.h.

Fifth Term - Spring

89:100	Cooperative Work Experience	4 s.h.
90:285	Ag Finance Management	2 s.h.
92:263	Ag Futures & Options	2 s.h.
92:272	Employment Relations & Business Decisions	2 s.h.
	Ag Electives	4 s.h.
		14 s.h.
	Total Hours	**67 s.h.**

E-Agribusiness

Internet access, e-commerce and information technologies are revolutionizing the landscape of agribusiness and production agriculture. The E-Agribusiness curriculum is designed to prepare individuals who desire to utilize e-commerce technology to conduct business. The program provides a sound foundation in agriculture, business, and information technology, and develops strengths in the areas of communication, computer applications, business management, Internet function, and entrepreneurship. Completion of the program results in the award of associate in applied science degree.

ENTRANCE REQUIREMENTS

1. Completion of Algebra II in high school with a "C" or better, or
2. College Intermediate Algebra or equivalent with a "C" or better, or
3. COMPASS Algebra test with a score of 76-100
4. Students must demonstrate computer literacy by completing 1 year of high school computer courses, or
5. Be currently enrolled in Computer Applications for Ag (90:182) or its equivalent.

COURSE REQUIREMENTS

Students have considerable flexibility to select courses which will structure the program for their personal career goals.

General Education:

30:101	Communication Skills	4 s.h.
	Electives	8 s.h.

Agriculture Technology:

89:100	Coop Work Experience	4 s.h.
90:170	Intro to Ag Business	3 s.h.
90:182	Computer Applications	3 s.h.
92:272	Employment Relations	2 s.h.
	Ag Electives	14 s.h.

E-Commerce Requirements:

15:156	Networking I	4 s.h.
15:169	Media Experience	3 s.h.
15:186	Internet Programming I	3 s.h.
15:191	Intro to E-Commerce	3 s.h.
15:196	Structure & Design	3 s.h.
15:197	Internet Law	3 s.h.
	E-Commerce Elective	3 s.h.

Free Electives:

	Elective Courses	9 s.h.

Total Hours 69 s.h.

SUGGESTED SCHEDULE

This is a possible sequence of courses. A list of course corequisites and prerequisites will be prepared to allow students to determine their own sequence of courses to complete the program.

First Term - Fall

15:169	Media Experience	3 s.h.
30:101	Communication Skills I	4 s.h.
90:170	Intro to Ag Business	3 s.h.
90:182	Computer Applications	3 s.h.
	Ag Elective	3 s.h.
		16 s.h.

Second Term - Spring

15:196	Structure & Design	3 s.h.
	General Education Elective	3-4 s.h.
	Ag Electives	3 s.h.
	Free Electives	6 s.h.
		15-16 s.h.

Third Term - Summer

15:186	Internet Programming I	3 s.h.
	General Education Elective	3 s.h.
		6 s.h.

Fourth Term - Fall

15:156	Networking I	4 s.h.
15:191	Intro to E-Commerce	3 s.h.
	General Education Elective	3-4 s.h.
	Ag Electives	3-4 s.h.
	Free Electives	3 s.h.
		16-18 s.h.

Fifth Term - Spring

15:197	Internet Law	3 s.h.
89:100	Coop Work Experience	4 s.h.
92:272	Employment Relations and Business Decisions	2 s.h.
	E-Commerce Elective	3 s.h.
	Ag Electives	6 s.h.
		18 s.h.

Total Hours 71-74 s.h.

Agricultural Technology Electives

If electives are required for your Ag studies, counselors and Ag instructors will help you select courses from the following course listing which will help focus your specialty study:

AG ELECTIVES

15:120 Business Law I
15:151 Accounting Principles II
90:169 Swine Production
90:171 Animal Nutrition
90:189 Salesmanship/Advertising and Retailing
90:264 Introduction to Farm Operation
90:282 Soils/Crop Management
90:293 Beef Cattle Production
92:166 Animal Health
92:168 Crop Production Lab
92:176 Welding
92:189 Ag Real Estate Evaluation
92:261 Site-Specific Crop Management
92:262 Swine A.I. Center Management
92:263 Agriculture Futures and Futures Options
92:264 Horse Essentials/Equine Essentials/Horse Care and Management
92:270 Livestock Production Lab I
92:271 Livestock Production Lab II
92:273 Equipment Maintenance and Management

Course Descriptions -

15:120 Business Law I (3 s.h.) Prerequisite: None. Law as applied to business transactions and business relationships. An introduction to jurisprudence and the courts, contracts, commercial paper, sales, and security agreements. (45-0)

15:150 Accounting Principles I (3 s.h.) An introductory accounting course: analyzing transactions, matching principle, adjusting and closing entries, financial statements, receivables, inventories, fixed assets and intangible assets, current liabilities, corporations (capital stock transactions, dividends, income and taxes, stockholder's equity, investment in stocks), bonds payable, investment in bonds. (45-0)

15:151 Accounting Principles II (3 s.h.) Prerequisite: 15:150, Accounting Principles I, or equivalent. Course covers Statement of Cash Flows, financial statement analysis, job order and process cost systems, cost behavior, budgeting, standard costing, differential analysis and product pricing, capital investment analysis, activity-based costing, and just-in-time manufacturing. Emphasis is on management's use of accounting information. (45-0)

15:156 Networking I (4 s.h.) This course provides an overview of networking, including such topics as networking advantages, OSI layers, addressing and routing protocols, and LAN design, topologies, and cabling. (60-0)

15:169 Media Experience (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems. This course covers comprehensively the latest version of HTML. Students will learn good coding practices and be introduced to web development tools and FTP programs. Students will also be introduced to CSS (Cascading Style Sheets), image management, and basic JavaScript. (30-30)

15:186 Internet Programming I (3 s.h.) Prerequisite: 15:169, Media Experience, and 15:196, Structure and Design, or permission of the instructor. This course will teach the fundamentals of client-side web scripting with JavaScript. Students will learn about browser-related object models and their associated properties, events, and methods. Students will work with these models to create documents on the fly, create pop-up documents, manage images, manage framesets, create roll-overs, enable and validate form elements, manage cookies, create and maintain basic data bases, define and enable custom objects, and create various web-related tools. (30-30)

15:191 Introduction to E-Commerce (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems. This course provides students with foundational skills and general information about electronic business solutions on the World Wide Web. Topics will include features of Internet marketing, sales, computer graphics, and network security. Students will also be introduced to Internet-related programming concepts and tools used to create web-based solutions. (30-30)

15:196 Structure and Design (3 s.h.) A fundamental requirement for people in the Information Technology field is the ability to organize a solution to a problem. This, in and of itself, is a difficult task. Often, however, this skill takes a backseat to learning code or is lost in the complexity of the task. Structure and Design concentrates on the process of developing a logical algorithmic solution to a problem. (45-0)

15:197 Internet Law (3 s.h.) Students will learn and examine legal issues associated with e-commerce, including but limited to, intellectual property protection, rights of privacy, content control, antitrust, and problems of jurisdiction. (45-0)

30:101 Communication Skills I (4 s.h.) Improvement of skills in reading, writing, speaking, and listening, with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

30:102 Communication Skills II (4 s.h.) Prerequisite: 30:101, Communication Skills I. Students must have earned a "C" or higher grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101 with an emphasis on argumentative and persuasive writing and speaking, on research methods, and on

language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

70:112 Animal Science I (3 s.h.) This course is designed to provide students with a general overview of the livestock industry. It identifies the ways in which domestic animals serve the basic needs of humans for food, fiber, shelter, protection, fuel and emotional well-being. Students will develop an understanding of and be able to apply the basic principles of animal selection, breeding, genetics, feeding, health, and husbandry practices. As a student, you will become familiar with the economic and social issues that confront the livestock industry. (45-0)

70:212 Animal Science II (3 s.h.) This course applies advanced principles of livestock production and management. Areas of emphasis include: a review of animal husbandry practices, which result in greater performance and profit; livestock facilities requirements; production trends, animal health, and nutritional requirements for livestock produced in the Midwest; emphasis on swine and beef cattle production. (45-0)

80:134 Microeconomics (3 s.h.) Prerequisite: 80:133, Macroeconomics. An introductory study of how people use scarce resources to satisfy unlimited wants. The emphasis is on the behavior and decisionmaking by individual consumers, entrepreneurs, workers, and other resource owners in the product and resource markets and the resulting effects on the efficiency with which resources are used. (45-0)

89:100 D Cooperative Work Experience (4 s.h.) Practical training on the job under the cooperative supervision of the College and work supervisor. (0-240)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

90:160 Crop Science I (3 s.h.) Topics covered include: plant anatomy and physiology; plant classification and ID; pest classification and ID; and pesticides, pest management, application equipment, calibration, laws/regulations. Students will take the Iowa Core Manual examination as a requirement for this course. (38-15)

90:161 Crop Science II (3 s.h.) Basic concepts and principles of plant-soil-climate relationships. Management principles necessary for successful crop production with major emphasis on corn, soybeans, small grains, and legume crops common to North Iowa agriculture. (38-15)

90:168 Ag Math (2 s.h.) This course is designed for students seeking an Associate of Applied Science Degree in Agriculture. Ag Math is a developmental course in the fundamentals of arithmetic and elementary equation solving. (30-0)

90:169 Swine Production (2 s.h.) This course applies advanced principles of swine production and management. Areas of emphasis include: a review of swine husbandry practices, which result in greater performance and profit; livestock facilities requirements and maintenance, animal health, reproduction, and nutritional requirements. Students will have the opportunity to apply skills learned in the classroom to the swine operation at the NIACC Farm Lab. (30-0)

90:170 Introduction to Agricultural Business (3 s.h.) Basic economic concepts, principles, and practices reflected in agriculture. An overview of the major components of an agricultural business organization and the economic fundamentals involved in organizing, operating, and managing an agricultural business. (45-0)

90:171 Animal Nutrition (2 s.h.) Fundamentals of nutrition that deal with monogastric and ruminant animals. Materials covered will enable students to identify sources, composition and functions of various feedstuffs. Students will learn to evaluate and formulate livestock rations and will be able to make feeding recommendations based upon varying livestock, environment and management conditions. (30-0)

90:182 Computer Applications for Agriculture (3 s.h.) This course is designed for students seeking an Associate of Applied Science Degree in Agriculture or for students transferring on to a four-year institution pursing a degree in agriculture. Students will be involved in techniques that make the personal computer a more productive tool in agriculture. Students will also have the opportunity to see how computers enable better management decision-making and improved economic efficiency of agricultural operations. Major topic area of instruction is the Microsoft Office 2000 package. (30-30)

90:183 Agricultural Economics (3 s.h.) This course is designed for students seeking an Associate of Applied Science Degree in Agriculture. Students will study the role of agriculture in the American economy. Basic economic concepts, the composition and pricing of agricultural products, government and monetary policy will be discussed. A study of this country's agricultural economic policies with a look at how other countries' agricultural economic policies affect us. The economic decision-making process will be taught built upon the management function of planning, organizing, directing, and controlling. (45-0)

90:185 Commodity Marketing (2 s.h.) Elements of producer marketing of major Midwest crops with emphasis on formulating marketing goals and plans. Marketing tools, futures and option markets, speculation, hedging, and risk management. (30-0)

90:186 Soil Science (3 s.h.) Introduction to the physical, chemical, and biological properties of soils with an emphasis on the functions of the soil as a medium to support plant life. A review of the sources and functions of major and minor plant elements, fertilizers and their properties, soil acidity, liming materials, and soil conservation. (38-15)

90:189 Salesmanship/Advertising and Retailing (2 s.h.) Technique of selling and advertising of agricultural goods and services. Sales presentations and advertising set ups of agricultural goods and services will serve as a basis for this course. (30-0)

90:264 Introduction to Farm Operation (3 s.h.) Introduction to Farm Operation is a unique study experience with hands-on activities in the learning lab at NIACC. Students enrolled in this three-credit course participate in the management and operation of the NIACC Teaching Farm Lab. The primary objective of this course is to provide experience in the planning, purchasing, production, construction, maintenance, marketing, and investment decisions associated with a diversified Iowa farm operation. (10-90)

90:267 Precision Ag Technology Systems (2 s.h.) Prerequisite: Intro to Computers or Ag Computer Applications or demonstrated proficiency with computers. Microcomputer technology applications in agriculture with global positioning systems, geological information systems, mapping systems, graphics interface, field sensing, and equipment control related to site specific farming applications. Electronics/computers applied to practical problems in modern agricultural systems to sense, monitor, and control various processes in agronomic and animal environments. Utilization of GPS and GIS systems to analyze, manipulate, and manage Ag resources and related problems. Evaluating and using information systems and electronic communications for business profit. (15-30)

90:282 Soil and Crop Management (2 s.h.) Prerequisite: 90:186, Soil Science, or its equivalent. The use of advanced technology for crop production. (30-0)

90:285 Agricultural Finance Management (2 s.h.) Financial requirements of individual farms and farm cooperative organizations. The administration and policies of lending institutions and farm credit. (30-0)

90:293 Beef Cattle Production (2 s.h.) This course is designed to help students identify the primary biological principles that contribute to raising productive beef cattle, to integrate biological and economic principles that comprise effective management decisions needed to produce profitable cattle, and to enhance the understanding and communication between all segments of the beef industry. The course material identifies the primary management principles and practices needed by commercial and seed stock producers to raise productive and profitable cattle that can meet the specifications needed by the beef industry. (30-0)

92:151 Ag Business Accounting I (3 s.h.) Principles of debit, credit, the recording of data in various types of journals, posting of the ledgers, the worksheet, financial statements and their interpretation, analysis, adjusting, and closing the books at the end of the fiscal period. (45-0)

92:166 Animal Health (2 s.h.) This course provides a basic overview of animal health principles and practices that enable students to identify the major diseases of livestock, prescribe treatment and properly administer treatment. The course includes a review of animal insects, parasites, and reproductive management. The course allows students to develop strategies aimed at disease prevention, disease treatment and improved animal performance while providing concern for the animal's well being. (30-0)

92:168 A or B Crop Production & Lab (1 or 2 s.h.) (0-30) or (0-60) Problem-solving approach to crop management. Principles and practices of agricultural science are used in the discussion of management problems and operations related to crop production at the NIACC Farm Lab. Students will participate in the management and operations of the NIACC Farm Lab. Field trips and guest speakers. (0-30) or (0-60)

92:176 Welding (2 s.h.) An introductory course teaching basic skills in the areas of shielded metal arc welding, gas metal arc welding, and oxyacetylene welding, cutting and brazing. The basic fundamentals of each process are covered. Safe welding practices are taught. The course provides skill application in all positions, on mild steel with single and multi-pass welds with backing strips. (15-30)

92:189 Ag Real Estate Evaluation (2 s.h.) Concepts of appraisal and pricing of real estate, along with development, growth, and value of real estate. Methods of acquiring and financing real estate and estate planning. (30-0)

92:260 Advanced Computer Applications (2 s.h.) Prerequisite: 90:182, Computer Applications for Agriculture; 90:186, Soil Science; and 70:112, Animal Science I; or with instructor approval. An advanced course that allows the student to apply the fundamentals of computers, accounting, crops, and livestock. Intended to enhance the foundations of early knowledge, in each area, with the ability to make more efficient, effective decisions. (30-0)

92:261 Site-Specific Crop Management (2 s.h.) Prerequisite: 90:186, Soil Science, or its equivalent. The use of advanced technologies for crop production. (30-0)

92:262 Swine A.I. Center Management (1-3 s.h.) Students will be responsible for the operation and management of the Swine A.I. Center. During the period of instruction students will develop skills associated with the artificial insemination of swine. This hands-on experience utilizes the NIACC's industry-leading swine lab facility which includes housing of gilts, sows and boars; bright and easily accessible training areas, a fully equipped laboratory for semen processing, evaluation, extension, packaging, and storage. The course emphasizes boar management, training, reproductive physiology, semen collection, handling and processing; sow reproductive physiology, semen evaluation and packaging, artificial insemination techniques, semen marketing, and business management. (15-30, 30-60, or 45-90)

92:263 Agriculture Futures and Futures Options (2 s.h.) Prerequisite/Corequisite: Commodity Marketing. Advanced commodity marketing concepts, principles, and terminology. (30-0)

92:264 Horse Essentials/Equine Essentials/Horse Care and Management (2 s.h.) General concepts of breed type and identification; the selection process; nutrition requirements; the reproduction cycle; the importance of genetics; general health; and management requirements will build a strong background for those interested in owning a horse of their own or pursuing a career in equine management. (30-0)

92:270 Livestock Production Lab I (1 or 2 s.h.) Students will develop livestock husbandry skills associated with profitable beef and swine production. This hands-on experience emphasizes production practices that increase reproductive efficiency, insure herd health, increase pounds of market production, provide proper nutrition, and assure high market value. Students will assist in the selection, breeding, partuition, processing, feeding, fitting, and marketing of hogs and cattle. Students will evaluate, modify, and manage livestock facilities for maximum production efficiency. (0-30 or 60)

92:271 Livestock Production Lab II (1 or 2 s.h.) Students will develop livestock husbandry skills associated with profitable beef and swine production. This hands-on experience emphasizes production practices that increase reproductive efficiency, insure herd health, increase pounds of market production, provide proper nutrition, and assure high market value. Students will assist in the selection, breeding, partuition, processing, feeding, fitting, and marketing of hogs and cattle. Students will evaluate, modify, and manage livestock facilities for maximum production efficiency. (0-30 or 60)

92:272 Employment Relations and Business Decisions (2 s.h.) This course is designed for students seeking an Associate of Applied Science Degree in Agriculture. Provides students with a management and supervisory learning experience. The course emphasizes the role of management in today's agribusiness environment. Principles of managerial control, coordination, communication, motivation, and organization are discussed. The role of management supervision and its influence on employee productivity, satisfaction, and organizational effectiveness is a major part of the course. (30-0)

92:273 Equipment Maintenance and Management (2 s.h.) Maintenance and management of agricultural machinery and power units. (23-45)

Are you considering transferring to a four-year college or university?

Students who earn associate degrees in the Agricultural Technology programs at NIACC may wish to apply their studies toward a bachelor's degree in agriculture or agriculture-related fields at a four-year college or university. For further information on options in agricultural studies at Iowa State University, please see pages 125-149 in the catalog or speak with a NIACC advisor.

BUSINESS

Gary Christiansen, Division Head
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ACCOUNTING/ COMPUTING

Accounting with
Computers/Diploma
Accounting/Associate in
Science - Business Degree
Accounting/Transfer Curriculum

INFORMATION TECHNOLOGY

E-Commerce, Web Design, and
Development
Information Systems Technology
Senior Network Administrator

MARKETING/ MANAGEMENT

Entrepreneurship
Financial Management/Insurance
General Business
Banking Option
Marketing and Sales Option - Diploma
Retail Management
Software Applications Specialist
Sport Management
Supervision and Management
Diploma
Career Option

OFFICE TECHNOLOGY

Degree Programs
Administrative Secretary
Administrative Medical Secretary
Administrative Medical Secretary/
Transcription Specialist Option
Administrative Legal Secretary

Diploma Programs
General Secretary
Legal Secretary
Medical Secretary
Medical Transcription
Software Applications Specialist

BUSINESS DIVISION

The Business Division provides courses and programs for students who wish to transfer to a baccalaureate degree granting institution, for students who are undecided and are interested in a career option program, or for students who want a specific career program.

Transfer Students

Students need to take courses that will facilitate their transfer to the institution of their choice. Courses that would assist students who are business majors would be accounting, computers, statistics and spreadsheets. Other business courses may also transfer to many institutions (see pages 214-217 for specific degree requirements).

Career Option Students

For students interested in the business area but undecided as to what degree to pursue, career-option programs provide the flexibility these students need. Upon completion of a career-option program a student may choose to pursue a baccalaureate degree or go directly to a chosen occupational area. Career Option programs are available in Accounting/Computing, Marketing/Management, and Office Technology (see pages 214-217 for specific degree requirements).

Career Students

Students who are focused on a particular occupation may choose from a variety of business career programs. These programs follow a curriculum that assists each student in developing the knowledge, skills, and abilities necessary to be successful in his/her chosen field.

The Business Division's highest priority is to assist students in reaching their individual educational goals. Each instructor is dedicated to providing the highest quality instruction to facilitate this process.

ACCOUNTING/ COMPUTING

Accounting with Computers/Diploma
Accounting/Associate in Science - Business Degree
Accounting/Transfer Curriculum

The focus in this cluster is accounting and computer technology. Each program provides courses that range from entry-level knowledge and skill development to more advanced levels. Students completing these programs are well prepared to be successful in entering the business field or in transferring to another institution.

Accounting with Computers/ Diploma

The Accounting with Computers/Diploma is designed to provide students with the skills, attitudes, and knowledge necessary to enter the field of bookkeeping and accounting; or the courses may be applied toward an Associate in Science-Business degree or an Associate in General Studies degree. The program may be completed in two semesters by following the suggested curriculum, or it may be spread out over three or more semesters. Upon satisfactory completion of the prescribed curriculum with an average grade point of 2.00 (C), the student is awarded a diploma. This recognition is granted to a person who has completed at least thirty (30) semester hours of credit.

The curriculum is implemented with classroom work, laboratory instruction and practice, and computerized accounting. Several accounting simulation projects, including manual and computerized, are completed to give the students experience in keeping a complete set of books. Many hours of computer experience in accounting, keyboarding, and word processing prepare students for full-time employment or for more advanced education in the accounting field.

Some of the occupational areas in which job opportunities may be found are:

* Accounting Clerk
* Accounting Technician
* Accounts Payable
* Accounts Receivable
* Bookkeeper
* Data Entry
* Data Processing
* General Office Clerk
* Payroll

For specific information contact the North Iowa Career Center or the NIACC Business Division.

ENTRANCE REQUIREMENTS
High school graduation or the equivalent.

REQUIRED COURSES:

15:107*	Keyboarding for Office Technology	3 s.h.
15:110	Electronic Calculators	1 s.h.
15:118	Accounting Procedures	3 s.h.
15:119	Accounting Applications	5 s.h.
15:134	Computer Applications	3 s.h.
15:155	Payroll Accounting	3 s.h.
15:160	Computer Accounting	3 s.h.
15:212	Business Communication	3 s.h.
89:150	Employment Strategies	1 s.h.

* Prerequisite: Pass keyboarding test at 30 wam with 3 errors or less.

ELECTIVE COURSES:

15:101	Introduction to Business	3 s.h.
15:120	Business Law I	3 s.h.
15:121	Business Law II	3 s.h.
15:140	Introduction to Computers and Information Systems	3 s.h.
15:144	Principles of Supervision	3 s.h.
15:149	Managing Human Resources	3 s.h.
15:175*	Electronic Spreadsheets	3 s.h.
15:211*	Word Processing	2 s.h.
15:221	Marketing	3 s.h.
15:241	Human Relations	3 s.h.
89:100	Cooperative Work Experience	2-5 s.h.

*Recommended Electives

For additional electives, see list of Business transfer courses near end of catalog.

SUGGESTED SCHEDULE

(For students planning to complete the program in one academic year)

First Term

15:107	Keyboarding for Office Technology	3 s.h.
15:110	Electronic Calculators	1 s.h.
15:118	Accounting Procedures	3 s.h.
15:134	Computer Applications	3 s.h.
15:212	Business Communication	3 s.h.
	Elective	2 s.h.
		15 s.h.

Second Term

15:119	Accounting Applications	5 s.h.
15:155	Payroll Accounting	3 s.h.
15:160	Computer Accounting	3 s.h.
89:150	Employment Strategies	1 s.h.
	Elective	3 s.h.
		15 s.h.
	Total Hours	**30 s.h.**

Accounting/Associate in Science - Business Degree

NIACC's Accounting/Associate in Science - Business Program is a dual-purpose program designed to give the students the option of preparing for employment using their accounting and computer skills or transferring to a four-year institution and receiving a baccalaureate degree. For specific placement information or for transfer requirements, please contact the North Iowa Career Center, the NIACC Business Division, or your counselor.

Upon completion of the curriculum with an average grade point of 2.00 (*C*), the student is awarded an Associate in Science-Business Degree/Accounting. Students who plan to pursue a four-year degree and need to meet general education requirements of transfer institutions should strive for an Associate in Arts degree. Several of the first-year requirements are the same for both the ASB degree and the AA degree.

ENTRANCE REQUIREMENTS
High school graduation or the equivalent.

REQUIRED COURSES/SUGGESTED SCHEDULE

First Term

15:110	Electronic Calculators	1 s.h.
15:112	Keyboarding Level I	1 s.h.
	OR 15:113 Keyboarding Level II (1 s.h.)	
	OR 15:107 Keyboarding for Office Technology (3 s.h.)	
15:109	Introduction to Accounting	3 s.h.
	OR 15:118 Acctg. Procedures (3 s.h.)	
	OR 15:150 Acctg. Principles I (3 s.h.)	
15:134	Computer Applications	3 s.h.
	OR 15:140 Introduction to Computers and Information Systems (3 s.h.)	
30:101	Communication Skills I	4 s.h.
40:121	Math for Decision Making	3 s.h.
	OR Appropriate level math course until minimum requirement is met (3 s.h.)	
		15/17 s.h.

Second Term

15:119	Accounting Applications	5 s.h.
	OR 15:151 Acctg. Principles II (3 s.h.)	
15:175	Electronic Spreadsheets	3 s.h.
30:102	Communications Skills II	4 s.h.
	Elective in Humanities/Social Science	3 s.h.
	Elective	3 s.h.
		16/18 s.h.

Third Term

15:120	Business Law I	3 s.h.
15:160	Computer Accounting	3 s.h.
15:241	Human Relations	3 s.h.
80:133	Macroeconomics	3 s.h.
	Elective	3 s.h.
		15 s.h.

Fourth Term

15:155	Payroll Accounting	3 s.h.
80:134	Microeconomics	3 s.h.
89:150	Employment Strategies	1 s.h.
	Business Electives	4 s.h.
	Elective	3 s.h.
		14 s.h.
	Total	**60/62 s.h.**

Business Electives

15:101	Intro to Business	3 s.h.
15:107	Keyboarding/Office Tech	3 s.h.
15:114	Computer Literacy	1 s.h.
15:118	Accounting Procedures	3 s.h.
15:119	Accounting Applications	5 s.h.
15:121	Business Law II	3 s.h.
15:140	Introduction to Computers and Info Systems	3 s.h.
15:141	Intro to MIS	3 s.h.
15:150	Accounting Principles I	3 s.h.
15:151	Accounting Principles II	3 s.h.
15:171	Intro to Entrepreneurship	3 s.h.
15:174	Database Management	3 s.h.
15:210	Business Statistics	3 s.h.
15:211	Word Processing	2 s.h.
15:212	Business Communication	3 s.h.

Associate in Science - Business Requirements

* 30 s.h. of 15:xxx courses
* 8 s.h. of Communications
* 9 s.h. of Social Sciences and/or Humanities
* 3 s.h. of Natural Sciences (40:121, Math for Decision Making is minimum required for transfer)
* A total of 60 s.h.

Accounting/Transfer Curriculum

Some of the courses listed on this page which apply toward an Associate in Science - Business degree will not count as transfer courses for an Associate in Arts degree. Please refer to the NIACC College Catalog for specific requirements or contact your counselor for assistance in determining your schedule to meet your goal.

COURSE DESCRIPTIONS -

Accounting/Computing

15:101 Introduction to Business (3 s.h.) An overview of the phases and functions of the business enterprise. Units of instruction include the organization, financing, production, and contemporary issues in business. The course provides an awareness and understanding of the complexities of the business world. (45-0)

15:107 Keyboarding for Office Technology (3 s.h.) Prerequisite: 15:112, Keyboarding Level I, and/or 15:113, Keyboarding Level II, OR keyboarding skill of 30 wam (words a minute) with 3 or less errors on a 3-minute timed writing. This course covers the continued development of speed and accuracy on the alphabetic, numeric, and symbol keys. Students develop skills in formatting, producing, and proofreading the following documents: memos, letters, envelopes, tables, reports, and other miscellaneous business documents. (30-30)

15:109 Introduction to Accounting (3 s.h.) A basic understanding of the process of collecting and using financial information in business. (45-0)

15:110 Electronic Calculators (1 s.h.) [Structured or Open Entry/Open Exit] A study of the 10-key, electronic calculator. Applied business problems on the calculator. This course has been designated as a pass/no pass course. (5-20)

* *

Open Entry/Open Exit

15:112 Keyboarding Level I (1 s.h.) [Open Entry/Open Exit] Prerequisite: None. This course covers the development of keyboarding techniques using the touch method on the computer to learn/review the alphabetic keys. The keyboarding goal is a minimum rate of 20 words a minute with 3 or less errors. Students with little or no keyboarding skill would begin at this level. This course has been designated as a pass/no pass course. (0-30)

15:113 Keyboarding Level II (1 s.h.) [Open Entry/Open Exit] Prerequisite: Keyboarding Level I OR ability to keyboard at 20 words a minute. This course covers the development of the touch method on the computer keyboard to learn/review the alphabetic, numeric, and symbol keys. The keyboarding goal is a minimum rate of 30 words a minute with 3 or less errors. This course has been designated as a pass/no pass course. (0-30)

15:114 Computer Literacy (1 s.h.) [Open Entry/Open Exit] Prerequisite: None. Emphasis on using the computer as a tool to create personal and business documents. Introductory windows, word processing, spreadsheet, presentation, database, and Internet units give students an opportunity to view software capabilities and use some of the features. Students with little or no computer background are encouraged to take this course. This course has been designated as a pass/no pass course. (0-30)

15:211 Word Processing (2 s.h.) This course is designed to introduce students to computers and the fundamentals of word processing. The students will progress from basic through intermediate features of word processing software. Also Open Entry/Open Exit. (20-20)

* *

15:118 Accounting Procedures (3 s.h.) An introductory course using a procedural approach applying the principles of debit and credit, recording of data in various journals, posting to the ledgers, the worksheet, financial statements, adjusting and closing entries, depreciation and inventory methods, plant assets, deferrals and accruals. (45-0)

15:119 Accounting Applications (5 s.h.) Prerequisite: 15:118 Accounting Procedures or 15:150 Accounting Principles with a grade of "C" or above. A continuation of Accounting Procedures including voucher system, partnerships, and corporations. Includes completion of an accounting simulation project. (75-0)

15:120 Business Law I (3 s.h.) Law as applied to business transactions and business relationships. An introduction to jurisprudence and the courts, contracts, commercial paper, sales, and security agreements. (45-0)

15:121 Business Law II (3 s.h.) Prerequisite: 15:120, Business Law I, or permission of the instructor. A continuation of 15:120. Agency, corporations, partnerships, bailments, real property, wills, trusts, insurance, bankruptcy, and government regulation of business. Some information on international law and liability of accountants. (45-0)

15:134 Computer Applications (3 s.h.) Emphasis on business applications of computer software. Students do business problems using word processing, electronic spreadsheet, and database management software. Students are also exposed to Windows operating systems, presentation software, and the Internet. (30-30)

15:140 Introduction to Computers and Information Systems (3 s.h.) Emphasis on computer literacy and business applications of computer software. Students do business problems using electronic spreadsheets, word processing software, database management software, and presentation software. Students also are exposed to some programming and web page development. (45-0)

15:141 Management Information Systems I (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, or permission of the instructor. The primary goal of MIS I is to prepare students to be productive participants in an information society. The course is designed to develop a broad understanding of business information systems, various ways to discern information from an information system, and look at ways to distribute this information. The student will also learn the basic principles and techniques for developing simple computer-based information systems for managerial decision

support systems through an extensive group project component of the course. (45-0)

15:144 Principles of Supervision (3 s.h.) This course is designed for individuals who hold, or who will hold, supervisory positions. The course involves the study of the major managerial functions (planning, organizing, staffing, directing, and controlling) and is augmented by other pervasive areas of supervision such as communication, motivation, decision-making, and human relations. (45-0)

15:149 Managing Human Resources (3 s.h.) Course describes the transition from personnel management to human resources management. The focus is on the systematic process of recruitment, selection, developing, and appraising employees. (45-0)

15:150 Accounting Principles I (3 s.h.) An introductory accounting course: analyzing transactions, matching principle, adjusting and closing entries, financial statements, receivables, inventories, fixed assets and intangible assets, current liabilities, corporations (capital stock transactions, dividends, income and taxes, stockholder's equity, investment in stocks), bonds payable, investment in bonds. (45-0)

15:151 Accounting Principles II (3 s.h.) Prerequisite: 15:150 Accounting Principles I, or equivalent. Course covers Statement of Cash Flows, financial statement analysis, job order and process cost systems, cost behavior, budgeting, standard costing, differential analysis and product pricing, capital investment analysis, activity-based costing, and just-in-time manufacturing. Emphasis is on management's use of accounting information. (45-0)

15:155 Payroll Accounting (3 s.h.) Prerequisite: 15:109 Introduction to Accounting or 15:118 Accounting Procedures or 15:150 Accounting Principles I with a grade of "C" or above. A study of basic business taxes. Emphasis on payroll taxes including social security taxes, income taxes, and unemployment taxes; completion of quarterly and annual reports and a payroll simulation project. (45-0)

15:160 Computer Accounting (3 s.h.) Prerequisite: 15:109 Introduction to Accounting or 15:118 Accounting Procedures or 15:150 Accounting Principles I with a grade of "C" or above. Designed to provide students with realistic experience with automated accounting consisting of five systems: general ledger, accounts payable, accounts receivable, depreciation, and payroll. Students will find themselves as having taken an accounting position in a company already using a computerized accounting system. Students will be working in an individualized instruction environment. (45-0)

15:171 Introduction to Entrepreneurship (3 s.h.) Prerequisite: 15:101, Introduction to Business. This course provides students with an introduction to entrepreneurship and new venture creation. Students will examine the characteristics of successful entrepreneurs and develop insight on developing and enhancing creativity and innovation. Students will also learn the process of assessing new venture proposals and understand the components of a business/feasibility plan. (45-0)

15:174 Database Management (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, or permission of the instructor. This course introduces students to database concepts, with topics such as database structure and design, planning, modeling, database software and servers, SQL, reports, fault tolerance, and administration being covered. Exposure to current and popular database systems will be provided. (30-30)

15:175 Electronic Spreadsheets (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, or 15:134, Computer Applications. Learn the fundamentals of spreadsheets, databases, and business graphics using appropriate software. (30-30)

15:210 Business Statistics (3 s.h.) Prerequisite: 40:125, Quantitative Methods; 40:140, Intro to Statistics; or 40:151, College Algebra & Trig I. The use of statistical methods as an analytical tool in business situations. Data collection, tabular and graphical presentations, frequency distributions, probability, sampling, data analysis, hypothesis testing and regression, and correlation analysis. The use of statistical software is incorporated into the course. (45-0)

15:211 Word Processing (2 s.h.) This course is designed to introduce students to computers and the fundamentals of word processing. The students will progress from basic through intermediate features of word processing software. Also Open Entry/Open Exit. (20-20)

15:212 Business Communication (3 s.h.) This course will help the student become an effective communicator in the business world. Basic written communication will be emphasized through practice in grammar structure, vocabulary building, and organization of thoughts. These skills will then be implemented when the student plans and writes business letters and interoffice memorandums. A secondary emphasis will be placed on oral communication, listening skills, and nonverbal communication. (45-0)

15:221 Marketing (3 s.h.) A study of the role of marketing in society as well as a study of target market (customer) determination and selection, product strategy, channels of distribution, pricing concepts, and promotional activities that are used in business today. (45-0)

15:241 Human Relations (3 s.h.) The study of how people satisfy both personal growth needs and organizational goals in their careers. Although also interested in the why of human behavior, human relations goes further and looks at what can be done to anticipate problems, resolve them, or prevent them from happening.

This field emphasizes knowledge that can be applied in practical ways to problems of interpersonal relations at work or in our personal life. Significant developments in recent years in the workplace have increased the importance of interpersonal skills in almost every type of work setting; these trends provide support for the necessity of acquiring competence in human relations. (45-0)

30:101 Communication Skills I (4 s.h.) Improvement of skills in reading, writing, speaking, and listening, with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

30:102 Communication Skills II (4 s.h.) Prerequisite: 30:101, Communication Skills I. Students must have earned a "C" or higher grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101 with an emphasis on argumentative and persuasive writing and speaking, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

40:121 Mathematics for Decision Making (3 s.h.) Prerequisite: Basic Arithmetic and Algebra skills as shown by one of the following: 1. A score of 16 or higher on the ACT Math Test or the ASSET Numerical Math Skills Test, or a score of 51 or higher on the Pre-Algebra part of the COMPASS Test AND a grade of "C" or better in 40:060, Beginning Algebra (at NIACC), or equivalent; 2. A score of 20 or higher on the ACT Math Test or the ASSET Numerical Math Skills Test or 51-75 on the Algebra section of the COMPASS test. Mathematics for Decision Making provides a survey of mathematics topics that includes sets, logic, probability, statistics, sets of numbers, algebra, geometry, and consumer math. This course will fulfill 3 hours of Natural Sciences requirement for the A.A. Degree. (45-0)

80:133 Macroeconomics (3 s.h.) An introductory study of how people use scarce resources to satisfy unlimited wants. After an introduction to economics, the emphasis is on the determination of national income, output, employment, and the general price level in the national economy including an examination of the money and banking system. (45-0)

80:134 Microeconomics (3 s.h.) Prerequisite: 80:133, Macroeconomics. An introductory study of how people use scarce resources to satisfy unlimited wants. The emphasis is on the behavior and decisionmaking by individual consumers, entrepreneurs, workers, and other resource owners in the product and resource markets and the resulting effects on the efficiency with which resources are used. (45-0)

89:100 B-C-D-E Cooperative Work Experience (2-5 s.h.) Practical training on the job under the cooperative supervision of the college and work supervisor. Designed primarily for the college-transfer students to provide an experience that: (1) is directly related to their college program and career objectives; or (2) will help them test out career interest and/or discover new career possibilities. Credit is determined on the basis of one semester of credit for each 60 hours of approved employment to be completed in a term. Appropriateness of learning objectives is an essential factor in the approval process. This course is repeatable up to 12 semester hours. (0-120 to 300)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

INFORMATION TECHNOLOGY

E-Commerce, Web Design and Development

E-Commerce, Web Design and Development provides students an opportunity to gain both a general knowledge of this dynamic profession as well as greater levels of specialization in a student-chosen option of study. As such, each graduate will be exposed to a common core of knowledge in E-Commerce, Web Design and Development as well as specialized education in one of four programmatic options: 1) Web Application Development; 2) Web Graphic Design; 3) E-Business; and 4) E-Entrepreneurship.

Web Application Development
Plans and takes responsibility for the success of a Web business operation/venture. Often works in a team environment with talented professionals. Experienced and knowledgeable about configuring and maintaining server, network or security systems for Intranet or Web operations. Experienced in the design and development of software, middleware, or systems utilizing new technology and demonstrating and delivering services through a Web presence. Experienced site designer and developer, including the management of teams to implement the business Web plan.

Web Graphic Design
Directs and implements the creative development and utilization of all Web-based tools; creates and implements new technology that increases efficiency of product/service delivery systems and improves client/user interactivity. Often works in a team environment with talented professionals. Experienced in the design and production of graphics/images that are compatible with Web standards, proficiently utilizes standard graphics applications with skills producing vector images, bitmap images, HTML, animation 2D, and photo manipulation. Directs the visual identity of Web site design as well as ensures content production is met on time and within budget.

E-Business
Provide strategic e-commerce marketing planning, including competitive analysis, electronic business planning, systems planning and organizational structuring to support and enhance the company's overall marketing efforts. Develops complete business strategy, technology architecture and planning, design and development of new applications utilizing the Web/Internet, Intranet, EDI, and security audits. Often works in a team environment with talented professionals. Experienced in Web technology surrounding delivery methods and systems, is able to plan and create marketing strategies for full service/product exposure using the Web's state-of-the-art technology, and is able to rationalize and formulate new/current marketing techniques for an organization's return on investment (ROI) and cost savings. Directs corporate Web marketing and e-business strategies involving product/service delivery, advertising, coordination of public and media relations, special events, overseeing customer support and satisfaction surveys. Directs Web departments toward meeting business objectives. Focus is to develop overall strategy and implementation of corporate Web efforts including brand management, look and feel, site intent, product and service delivery. Team with a wide variety of internal departments to coordinate Web operations.

E-Entrepreneurship
Perceives and utilizes the Internet as a strategic advantage to achieve business goals. Designs and builds complex electronic business systems for e-commerce start-ups. Often works in a team environment with talented professionals. Understands that the Web inherently involves the creation, transformation of relationships for value creation within organizations, between organizations (business-to-business e-commerce), and between organizations and individuals (business-to-consumer e-commerce). Skilled in developing and implementing a business plan, including marketing and financial resource development and management. Accepts higher risks with the potential for higher rewards.

Upon completion of the curriculum with an average grade point of 2.00 (*C*), the student is awarded an Associate in Science-Business Degree in E-Commerce, Web Design and Development.

ENTRANCE REQUIREMENTS

1. Completion of Algebra II in high school with a "C" or better, or
2. College Intermediate Algebra or equivalent with a "C" or better, or
3. COMPASS Algebra test with a score of 76 - 100, or
4. ACT math score of 20 or above.
5. Students must have completed 15:140, Introduction to Computers and Information Systems, or equivalent before entering this program.

SUGGESTED SCHEDULE

E-Commerce Core Courses

15:156	Networking I	4 s.h.
15:167	Network Security	3 s.h.
15:169	Media Experience	3 s.h.
15:186	Internet Programming I	3 s.h.
15:191	Introduction to E-Commerce	3 s.h.
15:194	E-Commerce Cases	4 s.h.
15:196	Structure and Design	3 s.h.
15:201	Visual Communication	3 s.h.
		26 s.h.

General Education Requirements

Communications	8 s.h.
Social Sciences and/or Humanities	9 s.h.
Natural Sciences	3 s.h.
	20 s.h.

E-Business Specialization Requirements

15:101	Introduction to Business	3 s.h.
15:142	Principles of Management	3 s.h.
15:197	Internet Law	3 s.h.
15:221	Marketing	3 s.h.
	Electives	6-10 s.h.
		18-22 s.h.

E-Entrepreneurship Specialization Requirements

15:171	Introduction to Entrepreneurship	3 s.h.
15:172	Managing the Entrepreneurial Venture	3 s.h.
15:173	Seminar in Entrepreneurship	3 s.h.
15:197	Internet Law	3 s.h.
	Electives	6-10 s.h.
		18-22 s.h.

Web Application Development Specialization Requirements

15:187	Internet Programming II	3 s.h.
15:188	Web Server Development	4 s.h.
15:199	Web Application Development	3 s.h.
15:202	Web Design	3 s.h.
15:203	Server Side Scripting	4 s.h.
15:204	Java	4 s.h.
		21 s.h.

Web Graphic Design Specialization Requirements

10:201	2-D Design	3 s.h.
10:202	Graphic Design	3 s.h.
10:220	Digital Illustration	3 s.h.
15:202	Web Design	3 s.h.
	Electives	4-9 s.h.
		16-21 s.h.

Note: Summer enrollment is required.

Information Systems Technology

NIACC's Information Systems Technology Program is a diverse program allowing students to choose their career path. The IST program incorporates several options -- Network Administration, Management Information Systems, Desktop Systems, and Web System Support. Students have the option of obtaining employment using their computer skills or transferring to a four-year institution and receiving a baccalaureate degree.

The program provides opportunities for students to pursue a variety of computer professional certifications including: Cisco's Certified Network Associate, Microsoft's Certified System Engineer, Novell's Certified Administrator, and A+ Certification.

Graduates may work as LAN or WAN administrators or specialists, Web systems support, PC support, help desk administrators, or many other positions in the technology field.

Upon completion of the curriculum with an average grade point of 2.00 (*C*), the student is awarded an Associate in Science-Business Degree in Information Systems Technology.

ENTRANCE REQUIREMENTS

1. Completion of Algebra II in high school with a "C" or better, or
2. College Intermediate Algebra or equivalent with a "C" or better, or
3. COMPASS Algebra test with a score of 76 - 100, or
4. ACT math score of 20 or above.
5. Students must have completed 15:140, Introduction to Computers and Information Systems, or equivalent before entering this program.

SUGGESTED SCHEDULE

First Year - IST Core Classes

15:141	Management Information Systems I	3 s.h.
15:156	Networking I	4 s.h.
15:157	Networking II	4 s.h.
15:161	Operating Systems I	3 s.h.
15:177	Operating Systems II	3 s.h.
15:169	Media Experience	3 s.h.
15:196	Structure & Design (3 s.h.--**MIS requirement only** in place of Media Experience)	
		20 s.h.

First Year - General Education Requirements

Communications	8 s.h.
Social Sciences and/or Humanities	9 s.h.
Natural Sciences	3 s.h.
	20 s.h.
Total Hours	**40 s.h.**

*2nd Year Options***

Network Administration

15:158 Networking III ..... 4 s.h.
15:159 Networking IV ..... 4 s.h.
15:163 Network Operating Systems ..... 4 s.h.
15:166 Inter/Intranet Application Management .. 4 s.h.
15:167 Network Security ..... 3 s.h.
Elective* ..... 4 s.h.
23 s.h.

MIS

15:164 Groupware Applications I ..... 4 s.h.
15:165 Groupware Applications II ..... 4 s.h.
15:168 Introduction to Programming ..... 4 s.h.
15:169 Media Experience ..... 3 s.h.
15:174 Database Management ..... 3 s.h.
15:204 Java ..... 4 s.h.
22 s.h.

Desktop Systems

15:163 Network Operating Systems ..... 4 s.h.
15:164 Groupware Applications I ..... 4 s.h.
15:165 Groupware Applications II ..... 4 s.h.
15:174 Database Management ..... 3 s.h.
15:176 Advanced Desktop Applications ..... 3 s.h.
15:178 Hardware Service and Support ..... 4 s.h.
22 s.h.

Web Systems Support

15:163 Network Operating Systems ..... 4 s.h.
15:164 Groupware Applications I ..... 4 s.h.
15:165 Groupware Applications II ..... 4 s.h.
15:166 Inter/Intranet Application Management .. 4 s.h.
15:167 Network Security ..... 3 s.h.
19 s.h.

*Choose one of the following electives for the Network Administration option:
15:179 Novell Administration ..... 4 s.h.
15:164 Groupware Applications I ..... 4 s.h.
15:178 Hardware Service and Repair ..... 4 s.h.

** The program requires 60 credit hours for completion.

Note: Summer enrollment may be required.

Note: Some second year options can not be completed at night.

Recommended Elective Courses are as follows:

15:142 Principles of Management ..... 3 s.h.

15:109 Introduction to Accounting ..... 3 s.h.
OR
15:118 Accounting Procedures (3 s.h.)
OR
15:150 Accounting Principles I (3 s.h.)

15:151 Accounting Principles II ..... 3 s.h.
15:171 Intro to Entrepreneurship ..... 3 s.h.
15:172 Managing the Entrepreneurial Venture .. 3 s.h.
15:173 Seminar in Entrepreneurship ..... 3 s.h.
15:175 Electronic Spreadsheets ..... 3 s.h.

Senior Network Administration

The Senior Network Administrator Program is designed to prepare students for employment in network design and implementation in Fortune 500 corporations, Internet services providers, telephone companies, and consulting companies. This program allows the student to prepare for several Cisco Certifications including:

The CCNP certification (Cisco Certified Network Professional) indicates advanced or journeyman knowledge of networks. With a CCNP, a network professional can install, configure, and operate LAN, WAN, and dial access services for organizations with networks from 100 to more than 500 nodes, including but not limited to these protocols and topics: IP, IGRP, IPX, Async Routing, AppleTalk, Extended Access Lists, IP RIP, Route Redistribution, RIP, Route Summarization, OSPF, VLSM, BGP, Serial, Frame Relay, ISDN, ISL, X.25, DDR, PSTN, PPP, VLANS, Ethernet, Access Lists, 802.10, FDDI, Transparent and Translational Bridging.

The CCDP certification (Cisco Certified Design Professional) indicates advanced or journeyman knowledge of network design. With a CCDP, a network professional can design routed and switched networks involving LAN, WAN, and dial access services for businesses and organizations with 100 to more than 500 nodes.

Students also gain project management skills and study emerging Internet and networking technologies.

NIACC's computer labs are equipped with the latest in computers and networking equipment to allow students the highest quality hands-on experience. Classes are lead by Cisco certified instructors.

ENTRANCE REQUIREMENTS

To enroll in the Senior Network Administrator Program, students must meet at least one of the following requirements:

* Passed the CCNA exam and have a computer-related college degree, such as MIS.
* Passed the CCNA exam and have 2 years of professional computer experience, preferably in networking.
* Completed Networking I-IV from NIACC or another Cisco Academy with 70% or better final Cisco assessments.
* Successfully completed equivalent corporate Cisco CCNA training.

Students must also meet all other general NIACC and IST requirements.

Individuals who do not meet these requirements, and wish to attain the CCNA and/or CCNP certification, should complete NIACC's Information Systems Technology Program.

Classes may be scheduled day or night and students may need to take summer classes to complete the program in a timely manner.

REQUIRED TECHNICAL COURSES/SUGGESTED SCHEDULE**

15:277	Network Routing	5 s.h.
15:278	Network Remote Access	5 s.h.
15:285	Multi-Layer Switching	5 s.h.
15:286	Network Support	5 s.h.
15:287	Emerging Remote Access Technologies	3 s.h.
15:288	Network Design I	3 s.h.
15:289	Network Design II	4 s.h.
15:290	Fundamentals of Project Management	4 s.h.
	Total Hours	**34 s.h.**

**Courses at night will be 8 weeks in duration. Day courses will follow the NIACC academic calendar.

In order to receive the A.S.B. degree in Senior Network Administration, students must satisfactorily complete the above technical core courses, satisfy 20 s.h. of general education (per page 215), complete 6 s.h. of elective credits, and maintain an overall 2.00 (C) grade point average.

COURSE DESCRIPTIONS

E-Commerce, Web Design and Development
Information Systems Technology
Senior Network Administration

10:201 Two-Dimensional Design (3 s.h.) Students/artists explore the process of visual problem solving through participation in class critiques of individual projects. Perception and structure: exploring visual order emphasizing two-dimensional concepts. (20-50)

10:202 Graphic Design (3 s.h.) Prerequisite: 10:201, Two-Dimensional Design. Creative problem solving through the exploration of aesthetic and technical aspects of graphic design using computer-aided design software. (20-50)

10:220 Digital Illustration (3 s.h.) Prerequisite: 10:201, Two-Dimensional Design. Recommended: 10:150, Creative Photography, or 10:202, Graphic Design. Creation and manipulation of digital imagery is explored in the context of creative expression. User interactivity, animation, full-color printing, and computer art theories are covered. The student completes visual projects with instructor guidance. (30-30)

15:101 Introduction to Business (3 s.h.) An overview of the phases and functions of the business enterprise. Units of instruction include the organization, financing, production, and contemporary issues in business. The course provides an awareness and understanding of the complexities of the business world. (45-0)

15:140 Introduction to Computers and Information Systems (3 s.h.) Emphasis on computer literacy and business applications of computer software. Students do business problems using electronic spreadsheets,

word processing software, database management software, and presentation software. Students also are exposed to web use, file management, and simple web page development. (45-0)

15:141 Management Information Systems I (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, or permission of the instructor. The primary goal of MIS I is to prepare students to be productive participants in an information society. The course is designed to develop a broad understanding of business information systems, various ways to discern information from an information system, and look at ways to distribute this information. The student will also learn the basic principles and techniques for developing simple computer-based information systems for managerial decision support systems through an extensive group project component of the course. (45-0)

15:142 Principles of Management (3 s.h.) 15:101, Introduction to Business, is recommended. Provides students with a general introductory management learning experience. Role of management in today's business environment; management's influence on employee productivity, employee satisfaction and organizational effectiveness; major control devices of management. (45-0)

15:156 Networking I (4 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. This course provides an overview of networking, including such topics as networking advantages, OSI layers, addressing and routing protocols, and LAN design, topologies, and cabling. (60-0)

15:157 Networking II (4 s.h.) Prerequisite: 15:156, Networking I or permission of the instructor. A continuation of Networking I. Provides overview of Ethernet, token ring, ATM, and FDDI; examines routing and addressing issues; studies router setup and configuration; examines LAN designing, testing, and switching; and studies TCP/IP protocol and addressing. (45-30)

15:158 Networking III (4 s.h.) Prerequisite: 15:157, Networking II or permission of the instructor. A continuation of Networking II. Addresses such topics as advanced router configurations, LAN switching, networking management, and advanced network design. (45-30)

15:159 Networking IV (4 s.h.) Prerequisite: 15:158, Networking III or permission of the instructor. A continuation of Networking III. Using primarily hands-on, project-based learning, this course includes advanced network design projects and advanced network management projects. Wide Area Networks are discussed. (45-30)

15:161 Operating Systems I (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. This course introduces students to the use of such popular operating systems as Microsoft DOS, Windows 98, Windows 2000 Professional, and Windows NT Workstation. This course also addresses operating system interface and controls; file system management; application management; and network client configuration. (30-30)

15:163 Network Operating Systems (4 s.h.) Prerequisite: 15:177, Operating Systems II, or permission of the instructor. This course goes into detail on topics of network operating system such as design, planning, installation, configuration, security, performance, administration, troubleshooting, fault tolerance, and disaster recovery. Client setup, file and print sharing, directory services, remote access, along with other network services will be explored. (30-60)

15:164 Groupware Applications I (4 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems; 15:156, Networking I; and 15:161, Operating Systems or permission of the instructor. This course provides an introduction to such applications as electronic mail, shared calendars, document sharing, and applications within a networked environment. The course will also include an examination of groupware application features, groupware configuration and management, the relation of desktop applications to group products, a comparison of specific groupware products, and implementation issues related to groupware applications. (45-30)

15:165 Groupware Applications II (4 s.h.) Prerequisite: 15:164, Groupware Applications I or permission of the instructor. This course builds on the Groupware Applications I. The course covers such topics as the advantages and disadvantages of groupware applications, implementation considerations, server installation requirements, initial configuration, and troubleshooting. (45-30)

15:166 Inter/Intranet Application Management (4 s.h.) Prerequisite: 15:163, Network Operating Systems, and 15:177, Operating Systems II, or permission of the instructor. This course enables students to design, set up, configure, and manage Internet and Intranet services such as web, e-mail, DNS, security, and FTP along with gaining knowledge and insight into management of emerging Internet technologies. (30-60)

15:167 Network Security (3 s.h.) Prerequisite: 15:156, Networking I or permission of the instructor. This course will provide an overview of issues related to security in a networked environment, including such topics as security and disaster recovery, security within information services, security within an organization, virus protection, and Internet security/firewalls. (30-30)

15:168 Introduction to Programming (4 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, and 15:196, Structure and Design, or permission of the instructor. This course provides students exposure to computer program design, structure, development, and troubleshooting through an examination of such topics as logic concepts, variables, input/output, iterative constructs, conditional flow, modular design, and the comparison of programming languages. (45-30)

15:169 Media Experience (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. This course covers comprehensively the latest version of HTML. Students will learn good coding practices and be introduced to web development tools and FTP programs. Students will also be introduced to CSS (Cascading Style Sheets), image management, and basic JavaScript. (30-30)

15:171 Introduction to Entrepreneurship (3 s.h.) Prerequisite: 15:101, Introduction to Business. This course provides students with an introduction to entrepreneurship and new venture creation. Students will examine the characteristics of successful entrepreneurs and develop insight on developing and enhancing creativity and innovation. Students will also learn the process of assessing new venture proposals and understand the components of a business/feasibility plan. (45-0)

15:172 Managing the Entrepreneurial Venture (3 s.h.) 15:101, Introduction to Business, or 15:171, Introduction to Entrepreneurship, are recommended. The course provides students with the tools necessary to manage and grow a small business. Students will examine the characteristics of successful small businesses and develop insights on developing strategies for successfully growing existing ventures. Students will also learn the process of evaluating the marketing and financial needs of the venture and understand the components of a business plan. (45-0)

15:173 Seminar in Entrepreneurship (3 s.h.) Prerequisite: 15:171, Introduction to Entrepreneurship, and 15:172, Managing the Entrepreneurial Venture. Course will combine group discussions with an actual case project at a local entrepreneurial firm. Students will have an opportunity to apply business skills learned throughout their NIACC program as they complete a project for a local entrepreneurial venture. Students also will discover key entrepreneurial success characteristics. (38-15)

15:174 Database Management (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, or permission of the instructor. This course introduces students to database concepts, with topics such as database structure and design, planning, modeling, database software and servers, SQL, reports, fault tolerance, and administration being covered. Exposure to current and popular database systems will be provided. (30-30)

15:176 Advanced Desktop Applications (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. Advanced topics in desktop computer applications will be studied in this course. Students will also examine integrated software packages such as Microsoft Office Professional in this class. They will utilize integrated software to solve several business problems presented to them allowing them to gain an understanding of integrated software, as well as other desktop applications, through hands-on experience. The course will be project-based, providing the student with a collaborative environment. (30-30)

15:177 Operating Systems II (3 sh.) Prerequisite: 15:140, Introduction to Computers and Information Systems, and 15:161, Operating Systems I, or permission of the instructor. This course is a continuation of Operating Systems I. It addresses advanced topics such as file management, shell programming, security, network and service administration, fault tolerance, recovery, troubleshooting, and operating system structure. This will be accomplished by studying the Unix or Linux operating systems. (30-30)

15:178 Hardware Service and Support (4 sh.) Prerequisite: 15:140, Introduction to Computers and Information Systems, 15:161, Operating Systems I, or permission of instructor. This course prepares the student to properly install, configure, upgrade, troubleshoot and repair microcomputer hardware. This includes basic knowledge of desktop and portable systems, basic networking concepts, and printers. The student must also demonstrate knowledge of safety and common preventive maintenance procedures. Topics include advanced DOS and Windows concepts such as batch files and memory management, installing and uninstalling software, basic hardware installation, and troubleshooting. (30-60)

15:179 Novell Administration (4 s.h.) Prerequisite: 15:161, Operating Systems I or permission of the instructor. This course provides an overview of where networking operating systems fit into the network solution, including such topics as the components and features of a network operating system, major network operating systems, operating system setup and configuration, network client issues, WAN issues, and network operating system selection criteria. (45-30)

15:186 Internet Programming I (3 s.h.) Prerequisite: 15:169, Media Experience, and 15:196, Structure and Design, or permission of the instructor. This course will teach the fundamentals of client-side web scripting with JavaScript. Students will learn about browser-related object models and their associated properties, events, and methods. Students will work with these models to create documents on the fly, create pop-up documents, manage images, manage framesets, create roll-overs, enable and validate form elements, manage cookies, create and maintain basic databases, define and enable custom objects, and create various web-related tools. (30-30)

15:187 Internet Programming II (3 s.h.) Prerequisite: 15:186, Internet Programming I or permission of the instructor. This course will allow students to continue building their JavaScripting tools while learning how to program in PERL. Students will learn how to access server documents, create and manage databases, and build bulletin boards. A lot of time will be spent building solutions that require PERL, HTML, and JavaScript together. (30-30)

15:188 Web Server Development (4 s.h.) Prerequisite: 15:187, Internet Programming II or permission of the instructor. This course gives students a solid understanding of what is going on behind the scenes of a Web site and the Internet. Students will learn the concepts and components that make up Web servers along with how to support and maintain these servers. Topics such as planning, configurations, testing, protocols, services, performance, disaster recovery, security, fault tolerance, databases, indexing, clients, transactions, SSL, and DNS will be covered. The course will provide experience with popular web servers and software. (30-60)

15:191 Introduction to E-Commerce (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. This course provides students with foundational skills and general information about electronic business solutions on the World Wide Web. Topics will include features of Internet marketing, sales, computer graphics, and network security. Students will also be introduced to Internet-related programming concepts and tools used to create web-based solutions. (30-30)

15:194 E-Commerce Cases (4 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. Investigate current E-Commerce basics and real life scenarios regarding electronic business practices. This capstone course will tie together previous E-Commerce courses to real life applications. (30-60)

15:196 Structure and Design (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. A fundamental requirement for people in the Information Technology field is the ability to organize a solution to a problem. This, in and of itself, is a difficult task. Often, however, this skill takes a backseat to learning code or is lost in the complexity of the task. Structure and Design concentrates on the process of developing a logical algorithmic solution to a problem. (45-0)

15:197 Internet Law (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. Students will learn and examine legal issues associated with e-commerce, including but limited to, intellectual property protection, rights of privacy, content control, antitrust, and problems of jurisdiction. (45-0)

15:199 Web Application Development (3 s.h.) Prerequisite: 15:187, Internet Programming II or permission of the instructor. This course will build on the student's prior Internet Programming knowledge and give them an overview of various web application development resources, tools, languages, and technologies. Students will be introduced to various current tools and technologies available to a Web Developer for development and begin to understand the situations each works best in. Emphasis will be on compare and contrast techniques, proper planning, relating the syntax and elements to other tools and languages, knowledge transfer, how interaction takes place, design, and developing an understanding and use of programming resources. (30-30)

15:201 Visual Communication (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. This course is an introduction to visual problem solving and communication through the World Wide Web. This course will cover basic technical terminology, an overview of software and equipment for web graphic design and an introduction into digital imagery. Studio assignments will be digitized and sent electronically for evaluation and critique. The goal is to expand student competency in basic visual and technical skills, developing and understanding of how perception relates to communication, and expose students to current issues related to web graphic design. (30-30)

15:202 Web Design (3 s.h.) Prerequisite: 15:201, Visual Communications or permission of the instructor. This course is an expansion of graphic design concepts merging traditional page design, typography, and digital imagery into the concepts and practices of web design. This studio course will cover the preparation of digital images, compositional dynamics, and sequencing of images into a complete working web design. Students will work with current graphic and digital imaging software and web authoring software. (30-30)

15:203 Server Side Scripting (4 s.h.) Prerequisite: 15:204, Java, or permission of the instructor. Students will learn to develop and implement web applications using server side scripting with emphasis on a single language. Additional server side scripting languages and technologies will be discussed. Much of the languages object model and methods will be covered with focus on how to work with these objects and procedures. Students will gain hands-on experience while writing real world-based web applications from the ground up. Database basics will also be learned along with SQL. Simple databases will be created for use with web application back-ends. Students will learn to access and modify their databases by building front-ends for them using server side scripting and embedded SQL. Sufficient time will be spent building solutions that require using ASP, HTML, JavaScript, and various other server side scripting technologies together. (30-60)

15:204 Java (4 s.h.) Prerequisite: 15:187, Internet Programming II, or permission of the instructor. This course introduces students to doing purely object-oriented programming using the Java syntax. Emphasis is placed on using Java for web development. Students learn how to create their own objects and employ these objects as solutions to common real world-based web problems using applications and applets. Students will learn to create interactive elements and simple GUI elements. Use of the java.awt components, event-handling model, containers, and layout managers will also be emphasized. File handling techniques and multithreading will be presented, along with JavaBeans. Applications and applets will be built from button up to facilitate in deeper understanding of the concepts used in OOP. (30-60)

15:221 Marketing (3 s.h.) A study of the role of marketing in society as well as a study of target market (customer) determination and selection, product strategy, channels of distribution, pricing concepts, and promotional activities that are used in business today. (45-0)

15:277 Network Routing (5 s.h.) Prerequisite: 15:159, Networking IV or permission of the instructor. This course focuses on advanced routing using Cisco routers connected in local-area networks (LANs) and wide-area networks (WANs) typically found at medium to large network sites. Upon completion of this training course, the student will be able to select and implement the appropriate Cisco IOS services required to build a scalable routed network. (45-60)

15:278 Network Remote Access (5 s.h.) Prerequisite: 15:277, Network Routing or permission of the instructor. Remote Access focuses on advanced WAN configurations, building remote access networks. The course teaches students how to build a remote access network to interconnect central sites to branch offices and home offices for telecommuters. The course further teaches students how to control access to the central site and how to maximize bandwidth utilization over the remote links. (45-60)

15:285 Multi-Layer Switching (5 s.h.) Prerequisite: 15:277, Network Routing or permission of the instructor. This course leads to the CCNP or CCDP. In this course, network administrators learn how to build campus networks using multilayer switching technologies over high speed Ethernet. This course includes both routing and switching concepts, covering both Layer 2 and Layer 3 technologies. (45-60)

15:286 Network Support (5 s.h.) Prerequisite: 15:277, Network Routing; 15:278, Network Remote Access; and, 15:185, Multi-Layer Switching, or permission of the instructor. This course leads to the CCNP. This course teaches students how to baseline and troubleshoot an environment using Cisco routers and switches for multi-protocol client hosts and servers connected with the following: Ethernet and Fast Ethernet LANS, Serial, Frame Relay, and ISDN BRI WANs. The course provides students with methodical practice using specific Cisco IOS software and Catalyst software tools to diagnose and correct problems on widely installed Cisco products. (45-60)

15:287 Emerging Remote Access Technologies (3 s.h.) Prerequisite: 15:159, Networking IV or permission of the instructor. Introduces end-to-end Digital Subscriber Line (DSL) and cable modem technologies with focus on hands-on lab training for technicians on installing, configuring and troubleshooting DSL CPE equipment and infrastructure in a small business environment. Also touches upon Wireless and other emerging technologies communications. (30-30)

15:288 Network Design I (3 s.h.) Prerequisite: 15:158, Networking III or permission of the instructor. This course leads to the CCDA certification. The CCDA certification (Cisco Certified Design Associate) indicates a foundation or apprentice knowledge of network design for the small office/home office (SOHO) market. CCDA certified professionals can design routed and switched networks involving LAN, WAN, and dial access services for businesses and organizations with networks of fewer than 100 nodes. (45-0)

15:289 Network Design II (4 s.h.) Prerequisite: 15:288, Network Design I; 15:277, Network Routing; 15:278, Network Remote Access; and 15:285, Multi-Layered Switching; or permission of the instructor. This course leads to the CCDP certification. The CCDP certification (Cisco Certified Design Professional) indicates advanced or journeyman knowledge of network design. With a CCDP, a network professional can design routed and switched networks involving LAN, WAN, and dial access services for businesses and organizations with 100 to more than 500 nodes. (60-0)

15:290 Fundamentals of Project Management (4 s.h.) Prerequisites: 15:141, MIS I and 15:158, Networking III, or permission of the instructor. Fundamentals of Project Management defines a project and the role of projects in business. Students identify and demonstrate the basic knowledge areas of Project Management and the Project Management Framework. These knowledge areas focus on managing project components including: Integration, Scope, Time (scheduling), Cost, Quality, Human Resource, Communications, Risk, and Procurement. Fundamentals of Project Management clarifies the relationship between Project Management and other management disciplines including general management knowledge and practice, and application-area knowledge and practice. Students learn to apply the breakdown of project phases and processes and construct project plans that employ project phasing and knowledge areas. Students also learn to identify the aspects of project-based organizational systems and classify business organizations by type and project characteristics. Critical Path Method (CPM) project scheduling is learned and utilized to coordinate project planning, execution and analysis throughout a project life cycle. (45-30)

MARKETING/ MANAGEMENT

Entrepreneurship

Financial Management/Insurance

General Business
- Banking Option
- Marketing and Sales Option - Diploma

Retail Management

Software Applications Specialist Certificate

Sport and Fitness Management

Supervision and Management Diploma
- Career Option

MARKETING/MANAGEMENT

Programs in this area are broad in scope and provide each student with a variety of skills necessary to be successful in the business environment. Marketing and management opportunities are readily available for students that have well-developed "high tech and high touch" skills.

Entrepreneurship and Small Business Management

The John Pappajohn Business and Entrepreneurial Center began operations at NIACC in April 1997. The center offers comprehensive entrepreneurial training and support programs for entrepreneurs, small business owners, and students.

The program provides students with an understanding of the many facets of entrepreneurship. Students will learn the process of identifying a business opportunity and developing an organization to establish a new venture. The curriculum will provide students with the proper tools to evaluate the feasibility of a new venture and to identify the available resources for assisting an entrepreneur during the start-up phase of the business.

Once a new venture has been launched, a new divergent set of challenges face the entrepreneur. The entrepreneur is typically responsible for strategic planning, financial management, marketing, human resource management, and operations. Although the entrepreneur may not be required to have a strong grasp of every specific detail, he/she must have a solid understanding of the critical issues facing the business. Thus, students will also receive instruction on managerial functions associated with owning a small business.

NIACC is working to combine classroom instruction with practical experience to enhance the development of a student's entrepreneurial and small business management skills. For specific information about the program, contact the NIACC Business Division or Pappajohn Center.

Integration into NIACC's Credit Program
The entrepreneurship option is included as an additional component of the Marketing/Management program in the Business Division. However, we do not believe the courses should be limited to business students.

We offer three courses with primary emphasis within the Business Division: (1) Introduction to Entrepreneurship; (2) Managing the Entrepreneurial Venture; and (3) Seminar in Entrepreneurship. A brief description of the courses is provided below.

15:171 Introduction to Entrepreneurship (3 s.h.) Prerequisite: 15:101, Introduction to Business. This course provides students with an introduction to entrepreneurship and new venture creation. Students will examine the characteristics of successful entrepreneurs and develop insight on developing and enhancing creativity and innovation. Students will also learn the process of assessing new venture proposals and understand the components of a business/feasibility plan. (45-0)

15:172 Managing the Entrepreneurial Venture (3 s.h.) 15:101, Introduction to Business, or 15:171, Introduction to Entrepreneurship, are recommended. The course provides students with the tools necessary to manage and grow a small business. Students will examine the characteristics of successful small businesses and develop insights on developing strategies for successfully growing existing ventures. Students will also learn the process of evaluating the marketing and financial needs of the venture and understand the components of a business plan. (45-0)

15:173 Seminar in Entrepreneurship (3 s.h.) Prerequisite: 15:171, Introduction to Entrepreneurship, and 15:172, Managing the Entrepreneurial Venture. Course will combine group discussions with an actual case project at a local entrepreneurial firm. Students will have an opportunity to apply business skills learned throughout their NIACC program as they complete a project for a local entrepreneurial venture. Students also will discover key entrepreneurial success characteristics. (38-15)

Financial Management/ Insurance Program

Associate in Science-Business (ASB)

NIACC's Financial Management/Insurance Program is designed to prepare graduates with employable skills related to the insurance and financial management career fields.

The purpose of this degree is to provide a degree goal for students who choose to follow a course of study designed to give the student the option of obtaining employment in business.

Upon the completion of the curriculum with a grade point average of 2.00 (*C*), the student is awarded an Associate in Science-Business Degree/Financial Management (see pages 214-217 for specific degree requirements).

Students who know they wish to pursue a four-year degree and want to meet general education requirements of transfer institutions should pursue the A.A. degree.

REQUIRED COURSES/SUGGESTED SCHEDULE

(Two-Year Program)

First Term

15:101	Introduction to Business	3 s.h.
15:140	Introduction to Computers and Information Systems	3 s.h.
15:190	General Insurance	3 s.h.
30:101	Communication Skills I	4 s.h.
40:121	Mathematics for Decision Making	3 s.h.
		16 s.h.

Second Term

15:175	Electronic Spreadsheets	3 s.h.
15:195	Property & Casualty Insurance	3 s.h.
30:102	Communication Skills II	4 s.h.
40:125	Quantitative Methods	3 s.h.
	General Education Elective	3 s.h.
		16 s.h.

Third Term

15:109	Intro to Accounting	3 s.h.
	OR 15:118 Acctg. Procedures (3 s.h.)	
	OR 15:150 Acctg. Principles I (3 s.h.)	
15:120	Business Law I	3 s.h.
15:200	Life, Health, & Disability Insurance	3 s.h.
80:133	Macroeconomics	3 s.h.
	Elective	3 s.h.
		15 s.h.

Fourth Term

15:121	Business Law II	3 s.h.
15:151	Accounting Principles II	3 s.h.
	OR 15:119 Acctg. Apps. (5 s.h.)	
80:134	Microeconomics	3 s.h.
89:100	Cooperative Work Experience	3 s.h.
	Elective	3 s.h.
		15 s.h.
	Total Hours	**62 s.h.**

Elective Courses

15:107	Keyboarding for Office Technology	3 s.h.
15:110	Electronic Calculators	1 s.h.
15:112	Keyboarding Level I	1 s.h.
15:113	Keyboarding Level II	1 s.h.
15:142	Prin. of Management	3 s.h.
15:160	Computer Accounting	3 s.h.
15:210	Business Statistics	3 s.h.
15:221	Marketing	3 s.h.
15:223	Prin. of Selling	3 s.h.
15:241	Human Relations	3 s.h.
89:150	Employment Strategies	1 s.h.

General Business

NIACC's General Business Program is a dual-purpose program designed to give the student the option of obtaining employment upon graduation or transferring to a four-year institution. It is for the student who is interested in business but does not have a particular area in mind.

Graduates are generally placed in sales, management, or general business (office, shipping and receiving, quality control) positions within industrial and retail firms. For specific placement information, contact the North Iowa Career Center or the NIACC Business Division.

Upon the completion of the curriculum with a grade point average of 2.00 (*C*), the student is awarded an Associate in Science-Business Degree/General Business (see pages 214-217 for specific degree requirements). Students who know they wish to pursue a four-year degree and want to meet general education requirements of transfer institutions, should pursue the A.A. degree (see pages 200-203). This will necessitate a slightly different curriculum.

ENTRANCE REQUIREMENTS
High school graduation or the equivalent.

REQUIRED COURSES/SUGGESTED SCHEDULE

First Year

15:101	Introduction to Business	3 s.h.
15:120	Business Law I	3 s.h.
15:121	Business Law II	3 s.h.
15:134	Computer Applications	3 s.h.
	OR 15:140 Introduction to Computers and Information Systems (3 s.h.)	
30:101	Communication Skills I	4 s.h.
30:102	Communication Skills II	4 s.h.
40:121	Mathematics[1]	3 s.h.
80:133	Macroeconomics	3 s.h.
80:134	Microeconomics	3 s.h.
	Elective	3 s.h.
		32 s.h.

Second Year

15:109	Intro to Accounting	3 s.h.
	OR 15:118 Acctg. Procedures (3 s.h.)	
	OR 15:150 Acctg. Principles I (3 s.h.)	
15:142	Principles of Management	3 s.h.
15:175	Electronic Spreadsheets	3 s.h.
15:221	Marketing	3 s.h.
15:241	Human Relations	3 s.h.
40:125	Quantitative Methods	3 s.h.
	Elective in Humanities or Social Science	3 s.h.
	Elective[2]	7 s.h.
		28 s.h.
	Total Hours	**60 s.h.**

[1] 40:121 or higher level math course
[2] Recommended electives

Elective Courses

15:110	Electronic Calculators	1 s.h.
15:144	Principles of Supervision	3 s.h.
15:149	Managing Human Resources	3 s.h.
15:151	Accounting Principles II	3 s.h.
15:171	Introduction to Entrepreneurship	3 s.h.
15:172	Managing the Entrepreneurial Venture	3 s.h.
15:173	Seminar in Entrepreneurship	3 s.h.
15:190	General Insurance	3 s.h.
15:210	Business Statistics	3 s.h.
15:222	Principles of Advertising	3 s.h.
15:223	Principles of Selling	3 s.h.
89:100	Cooperative Work Experience	2-5 s.h.
89:150	Employment Strategies	1 s.h.

General Business/Banking Option

This program is designed to help persons presently employed in banking to further their careers and to prepare students entering the job market for entry-level positions in banking and other financial firms. For specific placement information, contact the North Iowa Career Center or the NIACC Business Division.

Upon completion of the curriculum with an average grade point of 2.00 (*C*), the student is awarded an Associate in Science-Business Degree/General Business-Banking (see pages 214-217 for specific requirements). Students who know they wish to pursue a four-year degree and want to meet general education requirements of transfer institutions should pursue the A.A. degree (see pages 214-217). This will necessitate a slightly different curriculum.

Successful graduates can find job opportunities in the following occupational areas:

* Commercial / Ag Lender
* Consumer Lending
* Marketing Officer
* Night Processor
* Personal Banker
* Proof Operator
* Real Estate Lending
* Retail Banking Officer
* Teller
* Teller Manager

ENTRANCE REQUIREMENTS

High school graduation or the equivalent.

REQUIRED COURSES/SUGGESTED SCHEDULE

First Year

15:109	Intro to Accounting	3 s.h.
	OR 15:118 Acctg. Procedures (3 s.h.)	
	OR 15:150 Acctg. Principles I (3 s.h.)	
15:151	Accounting Principles II	3 s.h.
15:170	Principles of Banking Operation	3 s.h.
30:101	Communication Skills I	3-4 s.h.
30:102	Communication Skills II	3-4 s.h.
80:101	General Psychology	3 s.h.
80:133	Macroeconomics	3 s.h.
85:101	Public Speaking[1]	2 s.h.
	Mathematics[2]	3 s.h.
	Electives	4-5 s.h.
		30-33 s.h.

Second Year

15:120	Business Law I	3 s.h.
15:121	Business Law II	3 s.h.
15:140	Introduction to Computers and Information Systems	3 s.h.
15:241	Human Relations	3 s.h.
40:125	Quantitative Methods	3 s.h.
	Elective in Humanities or Social Science	3 s.h.
	Electives	9-12 s.h.
		27-30 s.h.
	Total Hours	**60 s.h.**

Elective Courses

15:101	Introduction to Business	3 s.h.
15:107	Keyboarding for Office Technology	3 s.h.
15:110	Electronic Calculators	1 s.h.
15:112	Keyboarding Level I	1 s.h.
15:113	Keyboarding Level II	1 s.h.
15:142	Principles of Management	3 s.h.
15:171	Introduction to Entrepreneurship	3 s.h.
15:172	Managing the Entrepreneurial Venture	3 s.h.
15:173	Seminar in Entrepreneurship	3 s.h.
15:175	Electronic Spreadsheets	3 s.h.
30:120	College Reading Skills	3 s.h.
80:110	Sociology	3 s.h.
80:111	Social Problems	3 s.h.
80:120	Intro to American Government	3 s.h.
80:121	American, State and Local Government	3 s.h.
80:134	Microeconomics	3 s.h.
89:150	Employment Strategies	1 s.h.
90:105	Business Math	2 s.h.

[1] Not required if the student enrolls for Communication Skills (8 s.h.)

[2] 40:121 or higher level math course

General Business/Marketing and Sales Option

Diploma Program

Marketing and Sales is a 30-semester hour program designed to meet the needs of the adult who is attending classes primarily at night. Successful completion of the curriculum should make a graduate employable in sales and marketing. In addition, all the courses apply toward the two-year Associate in Science-Business degree.

Upon satisfactory completion of the prescribed curriculum with an average grade point of 2.00 (*C*), the student is awarded a diploma.

ENTRANCE REQUIREMENTS
High school graduation or equivalent.

Successful graduates can find job opportunities in the following occupational areas

* Sales clerk
* Sales representative
* Management trainee

REQUIRED COURSES/SUGGESTED SCHEDULE

15:120	Business Law I	3 s.h.
15:142	Principles of Management	3 s.h.
15:109	Intro to Accounting	3 s.h.
	OR 15:118 Acctg. Procedures (3 s.h.)	
	OR 15:150 Acctg. Principles I (3 s.h.)	
15:221	Marketing	3 s.h.
15:222	Principles of Advertising	3 s.h.
15:223	Principles of Selling	3 s.h.
30:101	Communication Skills I (30:101C)	3 s.h.
80:133	Macroeconomics	3 s.h.
85:101	Public Speaking OR	2 s.h.
	85:105 Group Discussion (2 s.h.)	
	Electives	4 s.h.
	Total Hours	**30 s.h.**

Elective Courses

15:101	Intro to Business	3 s.h.
15:110	Electronic Calculators	1 s.h.
15:121	Business Law II	3 s.h.
15:134	Computer Applications	3 s.h.
15:140	Introduction to Computers and Information Systems	3 s.h.
15:144	Principles of Supervision	3 s.h.
15:149	Managing Human Resources	3 s.h.
15:151	Accounting Principles II[1]	3 s.h.
15:171	Introduction to Entrepreneurship	3 s.h.
15:172	Managing the Entrepreneurial Venture	3 s.h.
15:173	Seminar in Entrepreneurship	3 s.h.
15:175	Electronic Spreadsheets	3 s.h.
15:241	Human Relations	3 s.h.
30:102	Communication Skills II (30:101C)[2]	3 s.h.
80:134	Microeconomics	3 s.h.
89:100	Cooperative Work Experience	2-5 s.h.
	Mathematics	3 s.h.

[1] Prerequisite Accounting Principles I
[2] Prerequisite Communication Skills I

Retail Management

Retail Management is a career program designed to prepare graduates for a career in the field of retailing. Graduates usually have retail management or business ownership as a personal career goal.

The retail program curriculum is a combination of classroom instruction and learning on the job. The classroom instruction focuses on basic business principles that business people need to know. It also teaches the basics of retailing. The retail field experience (on-the-job) provides the student the opportunity to apply the classroom learning on the job as well as learn from the employer. The retail field experience also allows the student to gain valuable work experience and build a resume while enrolled in college.

When the prescribed curriculum is completed with a grade point of 2.00 or above, the student is awarded an Associate in Applied Science Degree in Retail Management.

Successful graduates can find employment opportunities in the field of retailing which offers a wide assortment of job possibilities. Visit *careersinretailing.com* for examples of career opportunities. For specific placement information regarding this program, contact the NIACC Workforce Development Center or the program coordinator.

ENTRANCE REQUIREMENTS
Students planning on entering this program should complete a college application. They should be a high school graduate or the equivalent. It is strongly recommended that they meet with the program coordinator to discuss the program as it relates to their career goals.

SUGGESTED SCHEDULE

Semester One

15:101	Introduction to Business	3 s.h.
15:223	Principles of Selling	3 s.h.
90:105	Business Math	2 s.h.
90:125	Retailing	3 s.h.
90:123	Retail Field Experience	5 s.h.
		16 s.h.

Semester Two

15:134	Computer Applications	3 s.h.
15:212	Business Communication	3 s.h.
15:221	Marketing	3 s.h.
15:241	Human Relations	3 s.h.
90:126	Retail Field Experience	5 s.h.
		17 s.h.

Semester Three

15:109	Introduction to Accounting	3 s.h.
15:144	Principles of Supervision	3 s.h.
89:150	Employment Strategies	1 s.h.
90:233	Retail Field Experience	5 s.h.
	Elective	3 s.h.
		15 s.h.

Semester Four

15:120	Business Law I	3 s.h.
15:142	Principles of Management	3 s.h.
90:234	Retail Buying	3 s.h.
	Elective	3 s.h.
		12 s.h.
	Total Hours	**60 s.h.**

Retail Field Experience

The retail field experience portion of this curriculum is a very important part of the curriculum. Once a student has determined the program meets his/her educational needs, he/she should meet with the program coordinator as soon as possible to discuss the necessary employment.

The following list contains recommended electives based on the idea of strengthening a student's business expertise:

15:149	Managing Human Resources	3 s.h.
15:171	Introduction to Entrepreneurship	3 s.h.
15:172	Managing the Entrepreneurial Venture	3 s.h.
15:173	Seminar in Entrepreneurship	3 s.h.
15:175	Electronic Spreadsheets	3 s.h.
15:222	Principles of Advertising	3 s.h.
80:133	Macroeconomics	3 s.h.
80:134	Microeconomics	3 s.h.
90:237	Retail Field Experience	5 s.h.

While the above courses are recommended electives, other courses may be taken with the approval of the program coordinator.

Software Applications Specialist - Certificate

The Software Applications Specialist - Certificate is designed to expose students to Microsoft software and prepare students to take the Microsoft Office User Specialist (MOUS) examination.

These courses are business electives and may apply to diplomas or degrees. Many of these courses are offered on an arranged basis or on line.

Upon satisfactory completion of the prescribed curriculum (at least 15 semester hours) with an average grade point of 2.00 (C), the student is awarded a certificate.

ENTRANCE REQUIREMENTS
High school graduation or the equivalent.

REQUIRED COURSES

15:134	Computer Applications	3 s.h.
15:136*	Advanced Document Processing	3 s.h.
15:175**	Electronic Spreadsheet	3 s.h.
15:211	Word Processing	2 s.h.
15:225	Microsoft Access	1 s.h.
15:226	Microsoft PowerPoint	1 s.h.
15:227	Microsoft Outlook	1 s.h.
15:228***	Software Integration	1 s.h.
		15 s.h.

* Prerequisites: 15:134 and 15:211

**Prerequisites: 15:134 or 15:140

***Prerequisites: 15:134, 15:136, 15:175, 15:211, 15:225, 15:226, and 15:227

Sport and Fitness Management

Associate in Science-Business (ASB)

Sport and Fitness Management is a field of study which prepares students for careers in the sport, recreation, and fitness industry. Students in the program will learn principles of business, including marketing, finance, management, and law while applying those principles to different areas of the sport industry.

As a key part of the sport and fitness management degree at NIACC, students will be required to gain internship credit for 3-6 semester hours. Internships give students the opportunity to apply their knowledge gained in the classroom to work in the field.

Upon completion of the curriculum with an average grade point of 2.00 (*C*), the student is awarded an Associate in Science-Business Degree/Sport and Fitness Management. (see pages 214-217 for specific requirements).

Students who know they wish to pursue a four-year degree and want to meet general education requirements of transfer institutions should pursue the A.A. degree (see pages 214-217). This will necessitate a slightly different curriculum.

Students who graduate with a 4-year sport and fitness management degree will be prepared for employment in a wide range of fields, including intercollegiate athletics, high school athletics, professional sport, recreation and fitness organizations, and a variety of other sport-related businesses. Employment opportunities abound in the sport and recreation field.

ENTRANCE REQUIREMENTS
High school graduation or the equivalent.

REQUIRED COURSES/SUGGESTED SCHEDULE

General Education Requirements

Communications ..... 8 s.h.
Natural Sciences..... 3 s.h.
Humanities/Social Sciences..... 9 s.h.
20 s.h.

Sport and Fitness Management Courses

15:126 Introduction to Sport Management..... 3 s.h.
15:127 Current Issues in Sport .....3 s.h.
15:128 Internship in Sport Management .....3-6 s.h.
9-12 s.h.

Businesses Courses

15:109 Intro to Accounting .....3 s.h.
OR 15:118 Acctg. Procedures (3 s.h.)
OR 15:150 Acctg. Principles I (3 s.h.)
15:241 Human Relations..... 3 s.h.
15:134 Computer Applications .....3 s.h.
OR 15:140 Introduction to Computers and Information Systems (3 s.h.)
Elective Business courses (15 prefix)*.....9-12 s.h.
15:101 Introduction to Business (3 s.h.)
15:120 Business Law I (3 s.h.)
15:142 Principles of Management (3 s.h.)
15:144 Principles of Supervision (3 s.h.)
15:175 Electronic Spreadsheets (3 s.h.)
15:212 Business Communications (3 s.h.)
15:221 Marketing (3 s.h.)
15:222 Principles of Advertising (3 s.h.)
18-21 s.h.

*For additional Business electives, see list of Business transfer courses on page 157.

Electives .....10 s.h.
Recommended Physical Education Courses:
60:113 Physical Fitness (1 s.h.)
60:114 Physical Fitness Lab (1 s.h.)
60:115 Games & Officiating I (2 s.h.)
60:116 Games & Officiating II (2 s.h.)
60:118 Care & Prevention of Athletic Injuries (2 s.h.)
60:150 Theory, Ethics, and Professional Responsibility of Coaching Interscholastic Athletics (1 s.h.)
60:152 Introduction to Anatomy and Physiology for Coaching (1 s.h.)
60:153 Human Development in Sports (1 s.h.)
10 s.h.

Total Hours **60 s.h.**

Supervision and Management

Diploma Program

The Supervision and Management Diploma Program is designed to meet the needs of students who want a foundation in developing skills in the areas of supervising people and the overall management of a business enterprise.

Successful completion of the program will assist students in developing an awareness and understanding to organize, coordinate, and evaluate the functions of a unit, department, or branch of an organization either in an industrial management or administrative capacity.

All the courses taken in the diploma program apply to the Supervision and Management Career Option Program.

Upon satisfactory completion of the prescribed curriculum with an average grade point of 2.00 (*C*), the student is awarded a diploma. This recognition is granted to a person who has completed at least thirty (30) semester hours of credit.

Successful graduates can find job opportunities in the following occupational areas:

* Supervisor clerks
* Department supervisor
* Supervisor, audit clerks
* Supervisor, accounting
* Supervisor, assembly stock
* Supervisor, coding clerk

SUGGESTED SCHEDULE

15:109	Intro to Accounting	3 s.h.
	OR 15:118 Acctg. Procedures (3 s.h.)	
	OR 15:150 Acctg. Prin. I (3 s.h.)	
15:120	Business Law I	3 s.h.
15:140	Introduction to Computers and Information Systems	3 s.h.
15:142	Principles of Management	3 s.h.
15:144	Principles of Supervision	3 s.h.
15:149	Managing Human Resources	3 s.h.
15:241	Human Relations	3 s.h.
30:101	Communication Skills I	4 s.h.
80:133	Macroeconomics	3 s.h.
	Elective	3 s.h.
	Total Hours	**31 s.h.**

Career Option

NIACC's Supervision and Management Program is designed to prepare graduates with interests in the area of supervising people and being part of the overall management of a business enterprise.

The intent of this program is to develop abilities to organize, coordinate, and evaluate the functions of a unit, department, or branch of an organization either in an industrial management or administrative management capacity.

Upon completion of the prescribed curriculum with an average grade point of 2.00 (*C*), the student is awarded an Associate in Science-Business Degree/Supervision and Management.

Students in the Supervision and Management Career Option Program supplement the diploma program with the following additional courses:

REQUIRED COURSES/SUGGESTED SCHEDULE

15:121	Business Law II	3 s.h.
15:151	Accounting Principles II	3 s.h.
15:221	Marketing	3 s.h.
30:102	Communication Skills II	4 s.h.
40:121	Mathematics for Decision Making	3 s.h.
80:134	Microeconomics	3 s.h.
	Social Science or Humanities Elective	3 s.h.
	General Electives	7 s.h.
		29 s.h.
	Total Hours	**60 s.h.**

Recommended electives:

15:171	Introduction to Entrepreneurship	3 s.h.
15:172	Managing the Entrepreneurial Venture	3 s.h.
15:173	Seminar in Entrepreneurship	3 s.h.
15:175	Electronic Spreadsheets	3 s.h.
89:100	Cooperative Work Experience, as arranged	

COURSE DESCRIPTIONS

Financial Management/Insurance
General Business
General Business/Banking Option
General Business/Marketing and Sales Option
Retail Management
Software Applications Specialist Certificate
Sport and Fitness Management
Supervision and Management Diploma and Career Option

15:101 Introduction to Business (3 s.h.) An overview of the phases and functions of the business enterprise. Units of instruction include the organization, financing, production, and contemporary issues in business. The course provides an awareness and understanding of the complexities of the business world. (45-0)

15:107 Keyboarding for Office Technology (3 s.h.) Prerequisite: 15:112, Keyboarding Level I, and/or 15:113, Keyboarding Level II, OR keyboarding skill of 30 wam (words a minute) with 3 or less errors on a 3-minute timed writing. This course covers the continued development of speed and accuracy on the alphabetic, numeric, and symbol keys. Students develop skills in formatting, producing, and proofreading the following documents: memos, letters, envelopes, tables, reports, and other miscellaneous business documents. (30-30)

15:109 Introduction to Accounting (3 s.h.) A basic understanding of the process of collecting and using financial information in business. (45-0)

15:110 Electronic Calculators (1 s.h.) [Structured or Open Entry/Open Exit] A study of the 10-key, electronic calculator. Applied business problems on the calculator. This course has been designated as a pass/no pass course. (5-20)

* *

Open Entry/Open Exit

15:112 Keyboarding Level I (1 s.h.) [Open Entry/Open Exit] Prerequisite: None. This course covers the development of keyboarding techniques using the touch method on the computer to learn/review the alphabetic keys. The keyboarding goal is a minimum rate of 20 words a minute with 3 or less errors. Students with little or no keyboarding skill would begin at this level. This course has been designated as a pass/no pass course. (0-30)

15:113 Keyboarding Level II (1 s.h.) [Open Entry/Open Exit] Prerequisite: Keyboarding Level I OR ability to keyboard at 20 words a minute. This course covers the development of the touch method on the computer keyboard to learn/review the alphabetic, numeric, and symbol keys. The keyboarding goal is a minimum rate of 30 words a minute with 3 or less errors. This course has been designated as a pass/no pass course. (0-30)

* *

15:118 Accounting Procedures (3 s.h.) An introductory course using a procedural approach applying the principles of debit and credit, recording of data in various journals, posting to the ledgers, the worksheet, financial statements, adjusting and closing entries, depreciation and inventory methods, plant assets, deferrals and accruals. (45-0)

15:119 Accounting Applications (5 s.h.) Prerequisite: 15:118 Accounting Procedures or 15:150 Accounting Principles with a grade of *"C"* or above. A continuation of Accounting Procedures including voucher system, partnerships, and corporations. Includes completion of an accounting simulation project. (75-0)

15:120 Business Law I (3 s.h.) Law as applied to business transactions and business relationships. An introduction to jurisprudence and the courts, contracts, commercial paper, sales, and security agreements. (45-0)

15:121 Business Law II (3 s.h.) Prerequisite: 15:120, Business Law I, or permission of the instructor. A continuation of 15:120. Agency, corporations, partnerships, bailments, real property, wills, trusts, insurance, bankruptcy, and government regulation of business. Some information on international law and liability of accountants. (45-0)

15:126 Introduction to Sport Management (3 s.h.) For individuals entering into the sport and physical education profession, it is critical to understand the theory and practice of ethical management principles in sport/fitness organizations. Administrators need to understand marketing, financial and legal aspects regarding the management of facilities, events, and organizations. These principles are applied to organizations within interscholastic, intercollegiate, international and professional sport along with the health/fitness and community recreation industries. (45-0)

15:127 Current Issues in Sport (3 s.h.) Prerequisite: 15:126, Introduction to Sport Management. Sport, health/fitness, and recreation organizations have been facing many changes in recent years. These changes have exposed many problems that these organizations must solve in order to ensure future success. This class is designed to expose students to these issues in order to prepare them for management careers in the sport, health/fitness, and recreation fields. (45-0)

15:128 Internship in Sport Management (1-3 s.h.) Prerequisite: Recommended 15:126, Introduction to Sport Management, or permission of instructor. This course is repeatable for up to six credits. For individuals entering into the sport and physical education profession, it is critical to gain practical experience in the field. Internships in sport management are designed to give the student an inside look at the day-to-day operation of businesses in the sport industry. They are also designed to give each student work experience within the chosen industry. (15-165)

15:134 Computer Applications (3 s.h.) Emphasis on business applications of computer software. Students do business problems using word processing, electronic spreadsheet, and database management software. Students are also exposed to Windows operating systems, presentation software, and the Internet. (30-30)

15:136 Advanced Document Processing (3 s.h.) Prerequisites: 15:134, Computer Applications, and 15:211, Word Processing. Students will learn intermediate to advanced functions of Microsoft Word including customizing templates, recording macros, creating on-screen forms, managing long documents, creating hyperlinks, and publishing on the World Wide Web. Upon completion of the course, the students may be prepared to take the MOUS (Microsoft Office User Specialist) expert exam for Microsoft Word 2000. (30-30)

15:140 Introduction to Computers and Information Systems (3 s.h.) Emphasis on computer literacy and business applications of computer software. Students do business problems using electronic spreadsheets, word processing software, database management software, and presentation software. Students also are exposed to some programming and web page development. (45-0)

15:142 Principles of Management (3 s.h.) 15:101, Introduction to Business, is recommended. Provides students with a general introductory management learning experience. Role of management in today's business environment; management's influence on employee productivity, employee satisfaction and organizational effectiveness; and, major control devices of management. (45-0)

15:144 Principles of Supervision (3 s.h.) This course is designed for individuals who hold, or who will hold, supervisory positions. The course involves the study of the major managerial functions (planning, organizing, staffing, directing, and controlling) and is augmented by other pervasive areas of supervision such as communication, motivation, decision making, and human relations. (45-0)

15:149 Managing Human Resources (3 s.h.) Course describes the transition from personnel management to human resources management. The focus is on the systematic process of recruitment, selection, developing, and appraising employees. (45-0)

15:150 Accounting Principles I (3 s.h.) An introductory accounting course: analyzing transactions, matching principle, adjusting and closing entries, financial statements, receivables, inventories, fixed assets and intangible assets, current liabilities, corporations (capital stock transactions, dividends, income and taxes, stockholder's equity, investment in stocks), bonds payable, investment in bonds. (45-0)

15:151 Accounting Principles II (3 s.h.) Prerequisite: 15:150, Accounting Principles I, or equivalent. Course covers Statement of Cash Flows, financial statement analysis, job order and process cost systems, cost behavior, budgeting, standard costing, differential analysis and product pricing, capital investment analysis, activity-based costing, and just-in-time manufacturing. Emphasis is on management's use of accounting information. (45-0)

15:160 Computer Accounting (3 s.h.) Prerequisite: 15:109 Introduction to Accounting or 15:118 Accounting Procedures or 15:150 Accounting Principles I with a grade of "C" or above. Designed to provide students with realistic experience with automated accounting consisting of five systems: general ledger, accounts payable, accounts receivable, depreciation, and payroll. Students will find themselves as having taken an accounting position in a company already using a computerized accounting system. Students will be working in an individualized instruction environment. (45-0)

15:170 Principles of Banking (3 s.h.) Fundamental bank functions presented in a descriptive fashion so that the beginning banker may view the profession in a broad (and operational) perspective. (45-0)

15:171 Introduction to Entrepreneurship (3 s.h.) Prerequisite: 15:101, Introduction to Business. This course provides students with an introduction to entrepreneurship and new venture creation. Students will examine the characteristics of successful entrepreneurs and develop insight on developing and enhancing creativity and innovation. Students will also learn the process of assessing new venture proposals and understand the components of a business/feasibility plan. (45-0)

15:172 Managing the Entrepreneurial Venture (3 s.h.) 15:101, Introduction to Business, or 15:171, Introduction to Entrepreneurship, are recommended. The course provides students with the tools necessary to manage and grow a small business. Students will examine the characteristics of successful small businesses and develop insights on developing strategies for successfully growing existing ventures. Students will also learn the process of evaluating the marketing and financial needs of the venture and understand the components of a business plan. (45-0)

15:173 Seminar in Entrepreneurship (3 s.h.) Prerequisite: 15:171, Introduction to Entrepreneurship, and 15:172, Managing the Entrepreneurial Venture. Course will combine group discussions with an actual case project at a local entrepreneurial firm. Students will have an opportunity to apply business skills learned throughout their NIACC program as they complete a project for a local entrepreneurial venture. Students also will discover key entrepreneurial success characteristics. (38-15)

15:175 Electronic Spreadsheets (3 s.h.) Prerequisite: 15:140, Introduction to Computer and Information Systems or 15:134, Computer Applications. Learn the fundamentals of spreadsheets, databases, and business graphics using appropriate software. (30-30)

15:190 General Insurance (3 s.h.) Principles of insurance and risk, including personal and business viewpoints in regard to life, health, property, and liability risks. (45-0)

15:195 Property and Casualty Insurance (3 s.h.) This course is designed to provide instruction that will provide a high level of understanding of property and casualty insurance. Topics covered will include fire, homeowners, dwelling, auto, business and professional liability, crime and fidelity, workers' compensation, and applications from a personal and commercial perspective. (45-0)

15:200 Life, Health, and Disability Insurance (3 s.h.) Prerequisite: 15:190, General Insurance. This course is designed to provide instruction in a variety of areas giving the student a good understanding of life insurance, health insurance, and the role and application within the industry. (45-0)

15:210 Business Statistics (3 s.h.) Prerequisite: 40:125, Quantitative Methods; 40:140, Intro to Statistics; or 40:151, College Algebra & Trig I. The use of statistical methods as an analytical tool in business situations. Data collection, tabular and graphical presentations, frequency distributions, probability, sampling, data analysis, hypothesis testing and regression, and correlation analysis. The use of statistical software is incorporated into the course. (45-0)

15:211 Word Processing (2 s.h.) This course is designed to introduce students to computers and the fundamentals of word processing. The students will progress from basic through intermediate features of word processing software. Also Open Entry/Open Exit. (20-20)

15:212 Business Communication (3 s.h.) This course will help the student become an effective communicator in the business world. Basic written communication will be emphasized through practice in grammar structure, vocabulary building, and organization of thoughts. These skills will then be implemented when the student plans and writes business letters and interoffice memorandums. A secondary emphasis will be placed on oral communication, listening skills, and nonverbal communication. (45-0)

15:221 Marketing (3 s.h.) A study of the role of marketing in society as well as a study of target market (customer) determination and selection, product strategy, channels of distribution, pricing concepts, and promotional activities that are used in business today. (45-0)

15:222 Principles of Advertising (3 s.h.) Principles and practices in commonly used advertising media. (45-0)

15:223 Principles of Selling (3 s.h.) This course is centered around the study of concepts and practices used by professional salespeople in today's market-driven economy. The course also includes a study of selling as a promotional strategy used by marketers. (45-0)

15:225 Microsoft Access (1 s.h.) This course is designed to take students through the core competencies for Microsoft Access in preparation for the Microsoft Office User Specialist (MOUS) certification test. (5-20)

15:226 Microsoft PowerPoint (1 s.h.) This course is designed to take students through the core competencies for Microsoft PowerPoint in preparation for the Microsoft Office User Specialist (MOUS) certification test. (5-20)

15:227 Microsoft Outlook (1 s.h.) The course is designed to take students through the core competencies for Microsoft Outlook in preparation for the Microsoft Office User Specialist (MOUS) certification test. (5-20)

15:228 Software Integration (1 s.h.) The student will integrate concepts learned from Microsoft Word, Access, PowerPoint, Excel, and Outlook in a project approach. (5-20)

15:241 Human Relations (3 s.h.) The study of how people satisfy both personal growth needs and organizational goals in their careers. Although also interested in the why of human behavior, human relations goes further and looks at what can be done to anticipate problems, resolve them, or prevent them from happening. This field emphasizes knowledge that can be applied in practical ways to problems of interpersonal relations at work or in our personal life. Significant developments in recent years in the workplace have increased the importance of interpersonal skills in almost every type of work setting; these trends provide support for the necessity of acquiring competence in human relations. (45-0)

30:101 Communication Skills I (4 s.h.) Improvement of skills in reading, writing, speaking, and listening, with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

30:101C Communication Skills I (3 s.h.) Improvement of skills in reading and writing with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing to receive a grade of "C" or higher. (45-0)

30:102 Communication Skills II (4 s.h.) Prerequisite: 30:101, Communication Skills I. Students must have earned a "C" or higher grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101 with an emphasis on argumentative and persuasive writing and speaking, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos.

Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

30:102C Communication Skills II (3 s.h.) Prerequisite: 30:101C, Communication Skills I. Students must have earned a "C" or higher grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101C with an emphasis on argumentative and persuasive writing, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos. Students must meet minimum competency requirements in writing to receive a grade of "C" or higher. (45-0)

30:120 College Reading Skills (3 s.h.) Designed to help students become more efficient and effective in reading college textbooks, required materials, leisure articles, and books. Course adapts to the style and needs of each individual to improve vocabulary, comprehension, rate, and study skills. (45-0)

40:121 Mathematics for Decision Making (3 s.h.) Prerequisite: Basic Arithmetic and Algebra skills as shown by one of the following: 1. A score of 16 or higher on the ACT Math Test or the ASSET Numerical Math Skills Test, or a score of 51 or higher on the Pre-Algebra part of the COMPASS Test AND a grade of "C" or better in 40:060, Beginning Algebra (at NIACC) or equivalent; 2. A score of 20 or higher on the ACT Math Test or the ASSET Numerical Math Skills Test or 51-75 on the Algebra section of the COMPASS test. Mathematics for Decision Making provides a survey of mathematics topics that includes sets, logic, probability, statistics, sets of numbers, algebra, geometry, and consumer math. This course will fulfill 3 hours of Natural Sciences requirement for the A.A. Degree. (45-0)

40:125 Quantitative Methods (3 s.h.) Prerequisite: Two years of high school algebra with a "C" or higher or 40:120, Intermediate Algebra, with a "C" or higher. Furnishes the student with the mathematics required for an understanding of various quantitative methods used in business. Set theory, linear programming, matrices, probability, linear systems, and applications. (45-0)

60:113 Physical Fitness (1 s.h.) A lecture course designed to teach the student about the importance of being physically fit. The course material will provide insight into various methods of testing physical fitness as well as identifying what good physical fitness is. The student will be able to assess his/her own level of physical fitness. (15-0)

60:114 Physical Fitness Lab (1 s.h.) A lab course designed to increase a person's interest of his/her own level of physical fitness. The course provides activities with which the student can improve his/her level of physical fitness in the areas of strength, flexibility, and endurance. The student will be required to participate in class activities twice a week. (0-30)

60:115 Games and Officiating I (2 s.h.) Guiding principles and standards: rules, mechanics, and procedures for competitive sports officiating. Students will work toward becoming a registered official in the Iowa Athletic Associations. Emphasis will be on football officiating, volleyball officiating, and boys' and girls' basketball officiating. Each student will gain actual officiating experience. (28-4)

60:116 Games and Officiating II (2 s.h.) Prerequisite: 60:115, Games and Officiating I. This course is a continuation of 60:115. Attention directed toward the study of wrestling, track, baseball, and softball. (28-4)

60:118 Care and Prevention of Athletic Injuries (2 s.h.) Recommended: one semester course in anatomy and physiology. Introductory preparation in athletic training, injury, treatment techniques, taping, wrapping, etc. Preventative measures to reduce athletic injuries. Course may be used to fulfill partial requirement for Iowa Coaching Certification. (30-0)

60:150 Theory, Ethics, and Professional Responsibilities of Coaching Interscholastic Athletics (1 s.h.) Guiding principles and techniques of coaching interscholastic athletics. Discussion of theory, ethics, and professional responsibilities as they relate to coaching interscholastic athletes. (20-0)

60:152 Introduction to Anatomy and Physiology for Coaching (1 s.h.) An introduction to anatomy and physiology with stress on the relationship to athletic actions. This course is designed as an introductory course for prospective coaches with little or no background in anatomy and physiology. (15-0)

60:153 Human Development in Sports (1 s.h.) A one-semester course with emphasis on human growth and development and relationship to physical activity, with special attention to children and adolescents. (15-0)

80:101 General Psychology (3 s.h.) Corequisite: New students with entering ACT or COMPASS reading scores below college level will be required to co-enroll in 30:120, College Reading Skills. An introduction to the scientific study of behavior; a brief history of psychology as a science, and topics fundamental to human behavior including developmental issues, sensory abilities, cognitive performance, social and emotional factors in behavior, and abnormal behavior and therapies. (45-0)

80:110 Sociology (3 s.h.) An introductory survey course, sociology is the scientific study of society. Inquires into what holds societies together, what causes societies to change, and how social forces affect our daily lives. Topics covered include: culture and society, socialization, social research, groups, organizations, institutions, deviance, gender, race and ethnicity. An emphasis is placed on cultural diversity. (45-0)

80:111 Social Problems (3 s.h.) Prerequisite: 80:110, Sociology, is strongly recommended. Introduction to the study of contemporary social problems. The course

examines how social problems are identified, explores underlying conditions and causes of social problems, and considers possible solutions and policy implications. Emphasis is on sociological and critical thinking frameworks. Topics of exploration include: mental illness, substance abuse, crime, prejudice and discrimination, prostitution, poverty, and more. (45-0)

80:120 Introduction to American Government (3 s.h.) A survey of the American federal system of government including a description and analysis of the constitution, the legislative, executive, and judicial branches of government, and the American political process. (45-0)

80:121 American State and Local Government (3 s.h.) A survey of state and local governments in the United States including an analysis of federal-state relations, state constitutions, state and local legislative, executive, and judicial systems, and major issues in state and local politics. (45-0)

80:133 Macroeconomics (3 s.h.) An introductory study of how people use scarce resources to satisfy unlimited wants. After an introduction to economics, the emphasis is on the determination of national income, output, employment, and the general price level in the national economy including an examination of the money and banking system. (45-0)

80:134 Microeconomics (3 s.h.) Prerequisite: 80:133, Macroeconomics. An introductory study of how people use scarce resources to satisfy unlimited wants. The emphasis is on the behavior and decisionmaking by individual consumers, entrepreneurs, workers, and other resource owners in the product and resource markets and the resulting effects on the efficiency with which resources are used. (45-0)

85:101 Public Speaking (2 s.h.) Public speaking as an intellectual tool for use in argumentation and persuasion in a democratic society. (30-0)

85:105 Group Discussion (2 s.h.) Principles and techniques of group discussion methods and procedures based on parliamentary methods. (30-0)

89:100 B-C-D-E Cooperative Work Experience (2-5 s.h.) Practical training on the job under the cooperative supervision of the college and work supervisor. Designed primarily for the college-transfer students to provide an experience that: (1) is directly related to their college program and career objectives; or (2) will help them test out career interest and/or discover new career possibilities. Credit is determined on the basis of one semester of credit for each 60 hours of approved employment to be completed in a term. Appropriateness of learning objectives is an essential factor in the approval process. This course is repeatable up to 12 semester hours. (0-120 to 300)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

90:105 Business Math (2 s.h.) Mathematical applications that apply to a variety of business problems. Topics covered include mathematical fundamentals; accounting applications including banking, payroll, and taxes; figuring percentages related to commissions, discounts, and markups; business problems in credit and interest; business and personal insurance; inventory and turnover; financial statements; and employment tests. (30-0)

90:123 Retail Field Experience (5 s.h.) The on-the-job training component of the Retail Management Program. (15-225)

90:125 Retailing (3 s.h.) The study of the selling of goods and services to ultimate consumers, involving distribution, inventory control, site selection, pricing, and other topics pertinent to successful retail business operations. (45-0)

90:126 Retail Field Experience (5 s.h.) Prerequisite: 90:123, Retail Field Experience. The on-the-job training component of the Retail Management Program. (15-225)

90:233 Retail Field Experience (5 s.h.) Prerequisite: 90:123 and 90:126, Retail Field Experience. The on-the-job training component of the Retail Management Program. (15-225)

90:234 Retail Buying Fundamentals (3 s.h.) Buying duties and policies, how to buy, how much to buy, buying methods, source selection, price lines, and sales records. Product knowledge and analysis relative to the buying function and value analysis of products. (30-30)

90:237 Retail Field Experience (5 s.h.) Prerequisite: 90:123, 90:126, and 90:233, Retail Field Experience. The on-the-job training component of the Retail Management Program. (15-225)

95:130 Communications I (3 s.h.) Study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

Quotable Quote:

The truth of the matter is that you always know the right thing to do. The hard part is doing it.

-Gen. H. Norman Schwarzkopf

OFFICE TECHNOLOGY

Degree Programs

Administrative Secretary
Administrative Medical Secretary
Administrative Medical Secretary/ Transcription Specialist Option
Administrative Legal Secretary

Diploma Programs

General Secretary
Legal Secretary
Medical Secretary
Medical Transcription

OFFICE TECHNOLOGY

Office Technology Programs provide for a rapidly changing occupational cluster. Employment opportunities are available for graduates with well-developed "people and technical skills."

NIACC's Office Technology Programs are dual-purpose programs designed to give the student the option of obtaining employment upon graduation or transferring to a four-year institution.

Upon the completion of the curriculum with a grade point average of 2.00 (*C*), the student is awarded an associate degree (see pages 214-217 for specific degree requirements).

Students who know they want to pursue a four-year degree and want to meet general education requirements at transfer institutions should pursue the A.A. degree (see pages 214-217).

Administrative Secretary - Degree

The Administrative Secretary Degree Program is designed to prepare students for employment with financial institutions, retail establishments, manufacturers, private organizations, and Civil Service.

The graduate's duties include: transcribing dictation; keyboarding correspondence, reports, and records; filing; handling telephone services; making appointments and receiving visitors; ordering supplies; making travel arrangements; taking care of general office administration; and using computers for word processing.

NIACC's office technology classrooms are equipped with the latest in computers, office machines, and equipment and are staffed by qualified instructors in the secretarial field.

Upon satisfactory completion of the prescribed curriculum (at least 60 semester hours) with an average grade point of 2.00 (*C*), the student is awarded an Associate in Science Business Degree/Administrative Secretary.

ENTRANCE REQUIREMENTS

High school graduation or the equivalent.

Successful graduates can find job opportunities in the following occupational areas:

* Executive secretary
* Records manager
* Office manager
* Administrative assistant
* Receptionist
* Information processing supervisor

REQUIRED COURSES/SUGGESTED SCHEDULE

First Year

First Term

15:107*	Keyboarding for Office Technology	3 s.h.
15:109	Intro to Accounting	3 s.h.
	OR 15:118 Acctg. Procedures (3 s.h.)	
	OR 15:150 Acctg. Prin. (3 s.h.)	
15:110	Electronic Calculators	1 s.h.
30:101	Communication Skills I	4 s.h.
	Humanities Elective OR	
	Social Science	3 s.h.
		14 s.h.

*Prerequisite: 15:112, 15:113 OR ability to pass keyboarding test 30 wam with 3 errors or less

Second Term

15:211	Word Processing	2 s.h.
30:102	Communication Skills II	4 s.h.
	Business Electives	10 s.h.
		16 s.h.

Second Year

First Term

15:134	Computer Applications	3 s.h.
	OR 15:140 Introduction to Computers and Information Systems (3 s.h.)	
15:212	Business Communication	3 s.h.
	Humanities Elective	3 s.h.
	Social Science Elective	3 s.h.
	Business Electives	4 s.h.
		16 s.h.

Second Term

15:136*	Advanced Document Processing	3 s.h.
15:175**	Electronic Spreadsheets	3 s.h.
15:218***	Professional Office Procedures	4 s.h.
89:150	Employment Strategies	1 s.h.
	Natural Science Elective	3 s.h.
		14 s.h.

* Prerequisites: 15:211 and 15:134 or 15:140
** Prerequisites: 15:134 or 15:140
***Prerequisites: 15:211 and 15:212

Recommended electives

15:101	Intro to Business	3 s.h.
15:142	Principles of Management	3 s.h.
15:221	Marketing	3 s.h.
15:225	Microsoft Access	1 s.h.
15:226	Microsoft PowerPoint	1 s.h.
15:227	Microsoft Outlook	1 s.h.
15:228	Software Integration	1 s.h.
15:241	Human Relations	3 s.h.
15:280	On-the-Job Training	1-6 s.h.

Students have the opportunity to focus on courses that will be most appropriate to help prepare them for employment. However, each student should seek the advice of the program coordinator and/or the student's advisor in making course selections.

Administrative Medical Secretary - Degree

The Administrative Medical Secretary Degree Program is designed to prepare students for employment in physicians' offices, hospitals, clinics, public health departments, Civil Service, medical laboratories, pharmaceutical houses, insurance companies, business and industrial firms with large medical departments, and foundations devoted to medical research.

The graduate's duties include preparing correspondence and medical records, filing, mailing, ordering supplies, handling telephone services, making appointments and receiving visitors, taking care of general office administration, and using a computer for word processing.

NIACC's office technology classrooms are equipped with the latest in computers, office machines, and equipment and are staffed by qualified instructors in the secretarial field.

Upon satisfactory completion of the prescribed curriculum (at least 60 semester hours) with an average grade point of 2.00 (*C*), the student is awarded an Associate in Science - Medical Secretary Degree.

ENTRANCE REQUIREMENTS
High school graduation or the equivalent.

Successful graduates can find job opportunities in the following occupational areas:

* Medical secretary
* Appointment clerk
* Receptionist
* Medical records manager
* Medical information processing operator

REQUIRED COURSES/SUGGESTED SCHEDULE

First Year

First Term

15:107* Keyboarding for Office Technology ..... 3 s.h.
15:109 Intro to Accounting ..... 3 s.h.
OR 15:118 Acctg. Procedures (3 s.h.)
OR 15:150 Acctg. Prin. (3 s.h.)
15:110 Electronic Calculators ..... 1 s.h.
30:101 Communication Skills I ..... 4 s.h.
94:104 Body Structure & Function ..... 4 s.h.
OR 70:111 Human Biology (4 s.h.)
15 s.h.

*Prerequisite: 15:112, 15:113 OR ability to pass keyboarding test at 30 wam with 3 errors or less

Second Term

15:134 Computer Applications ..... 3 s.h.
OR 15:140 Introduction to Computers and Information Systems (3 s.h.)
15:211 Word Processing ..... 2 s.h.
30:102 Communication Skills II ..... 4 s.h.
70:101 Biological Principles ..... 3 s.h.
70:102L Biological Principles Lab ..... 1 s.h.
Electives ..... 3 s.h.
16 s.h.

Second Year

First Term

15:175* Electronic Spreadsheets ..... 3 s.h.
15:212 Business Communication ..... 3 s.h.
15:251 Medical Terminology I ..... 3 s.h.
Electives ..... 6 s.h.
15 s.h.

*Prerequisite: 15:134 or 15:140

Second Term

15:136* Advanced Document Processing ..... 3 s.h.
15:250** Basic Medical Insurance & Coding ..... 2 s.h.
15:252 Medical Terminology II ..... 3 s.h.
15:259*** Medical Office Procedures ..... 3 s.h.
89:150 Employment Strategies ..... 1 s.h.
90:134 Pharmacology ..... 2 s.h.
14 s.h.

*Prerequisites: 15:134 OR 15:140 and 15:211
**Prerequisite: 94:104 or permission from instructor and 15:251
***Prerequisites: 15:211 and 15:212

Recommended Electives

15:142 Principles of Management ..... 3 s.h.
15:225 Microsoft Access ..... 1 s.h.
15:226 Microsoft PowerPoint ..... 1 s.h.
15:227 Microsoft Outlook ..... 1 s.h.
15:228 Software Integration ..... 1 s.h.
15:241 Human Relations ..... 3 s.h.
15:280 On-the-Job Training ..... 1-6 s.h.
70:250 Anatomy and Physiology I ..... 4 s.h.
90:141 Clinical Procedures I and Lab ..... 4 s.h.

Students have the opportunity to focus on courses that will be most appropriate to help prepare them for employment. However, each student should seek the advice of the program coordinator and/or the student's advisor in making course selections.

Administrative Medical Secretary Degree Transcription Specialist Option

The Administrative Medical Secretary Degree Transcription Specialist Program is designed to prepare students for employment in physicians' offices, hospitals, clinics, public health departments, Civil Service, medical laboratories, pharmaceutical houses, insurance companies, business and industrial firms with large medical departments, and foundations devoted to medical research.

The transcription specialist's duties primarily include transcribing medical documents and preparing correspondence and medical records; other secretarial duties include filing, mailing, ordering supplies, handling telephone services, making appointments and receiving visitors, taking care of general office administration, and using a computer for word processing.

NIACC's office technology classrooms are equipped with the latest in computers, office machines, and equipment and are staffed by qualified instructors in the field. Upon satisfactory completion of the prescribed curriculum (at least 60 semester hours) with an average grade point of 2.00 (C), the student is awarded an Associate in Science Degree/Medical Secretary with a Transcription Specialist Certificate.

ENTRANCE REQUIREMENTS

High School graduation or the equivalent.

REQUIRED COURSES/SUGGESTED SCHEDULE

First Year

First Term

15:107*	Keyboarding for Office Technology	3 s.h.
15:211	Word Processing	2 s.h.
15:251	Medical Terminology I	3 s.h.
30:101	Communication Skills I	4 s.h.
94:104	Body Structure and Function	4 s.h.
	OR 70:111 Human Biology (4 s.h.)	
		16 s.h.

*Prerequisite: 15:112, 15:113 OR ability to pass keyboarding test at 30 wam with 3 errors or less.

Second Term

15:109	Intro to Accounting	3 s.h.
	OR 15:118 Acctg. Procedures (3 s.h.) OR 15:150 Acctg. Prin. (3 s.h.)	
15:110	Electronic Calculators	1 s.h.
15:249	Medical Transcription I	3 s.h.
15:252	Medical Terminology II	3 s.h.
30:102	Communication Skills II	4 s.h.
90:140	Lab Tests	1 s.h.
		15 s.h.

Second Year

First Term

15:134	Computer Applications	3 s.h.
	OR 15:140 Introduction to Computers and Information Systems (3 s.h.)	
15:212	Business Communication	3 s.h.
15:256*	Medical Transcription II	3 s.h.
70:250	Anatomy and Physiology I	4 s.h.
89:150	Employment Strategies	1 s.h.
		14 s.h.

*Prerequisites: 15:249

Second Term

15:175****	Electronic Spreadsheets	3 s.h.
15:250*	Basic Medical Insurance and Coding	2 s.h.
15:259***	Medical Office Procedures	3 s.h.
15:265**	Medical Transcription III	3 s.h.
90:134	Pharmacology	2 s.h.
	Electives (Strongly recommend	2 s.h.
	70:251***** OR Anatomy and Physiology II, 4 s.h.)	
		15 s.h.

*Prerequisites: 94:104/70:101/70:250 or permission from instructor and 15:251

**Prerequisites: 15:249

***Prerequisites: 15:211 and 15:212

****Prerequisites: 15:134 OR 15:140

*****Strongly recommend prerequisite 70:250

Summer Term:

Strongly recommend taking 90:147, Pathophysiology as your elective from Second Year, Second Term. This course is only offered in the summer session. Prerequisites: 15:251 and 70:250; corequisite 70:251.

Administrative Legal Secretary - Degree

The Administrative Legal Secretary Degree Program is designed to prepare students for employment in law offices, insurance companies, financial institutions, courts, and police departments as well as in legal departments of business firms and government offices.

The graduate's duties include preparing letters, memos, court and client documents; filing; handling telephone services; making appointments and receiving clients; ordering supplies; making travel arrangements; taking care of general office administration, and using a computer for word processing.

NIACC's office technology classrooms are equipped with the latest in computers, office machines, and equipment and are staffed by qualified instructors in the secretarial field.

Upon satisfactory completion of the prescribed curriculum (at least 60 semester hours) with an average grade point of 2.00 (*C*), the student is awarded an Associate in Science Business Degree/Administrative Legal Secretary.

ENTRANCE REQUIREMENTS

High school graduation or the equivalent.

Successful graduates can find job opportunities in the following occupational areas:

* Legal secretary
* Legal transcriber
* Legal information processing operator
* Receptionist
* Legal records manager
* Appointment clerk

REQUIRED COURSES/SUGGESTED SCHEDULE

First Year

First Term

15:107*	Keybrdng for Office Technology	3 s.h.
15:109	Intro to Accounting	3 s.h.
	OR 15:118 Acctg. Procedures (3 s.h.)	
	OR 15:150 Acctg. Prin. (3 s.h.)	
15:110	Electronic Calculators	1 s.h.
30:101	Communication Skills I	4 s.h.
80:120	Intro to American Government	3 s.h.
		14 s.h.

*Prerequisite: 15:112, 15:113 OR ability to pass keyboarding test at 30 wam with 3 errors or less

Second Term

15:211	Word Processing	2 s.h.
30:102	Communication Skills II	4 s.h.
	Social Science/Humanities Electives	6 s.h.
	Business Elective	3 s.h.
		15 s.h.

Second Year

First Term

15:120	Business Law I	3 s.h.
15:134	Computer Applications	3 s.h.
	OR 15:140 Introduction to Computers and Information Systems (3 s.h.)	
15:212	Business Communication	3 s.h.
	Natural Science Elective	3 s.h.
	Business Elective	3 s.h.
		15 s.h.

Second Term

15:122*	Legal Office Procedures	5 s.h.
15:136**	Advanced Document Processing	3 s.h.
15:175***	Electronic Spreadsheets	3 s.h.
89:150	Employment Strategies	1 s.h.
	Business Electives	4 s.h.
		16 s.h.

*Prerequisites: 15:211 and 15:212

**Prerequisites: 15:211 and 15:134 OR 15:140

***Prerequisite: 15:134 or 15:140

Recommended Electives

15:101	Introduction to Business	3 s.h.
15:121	Business Law II	3 s.h.
15:225	Microsoft Access	1 s.h.
15:226	Microsoft PowerPoint	1 s.h.
15:227	Microsoft Outlook	1 s.h.
15:228	Software Integration	
15:142	Principles of Management	3 s.h.
15:241	Human Relations	3 s.h.
15:280	On-the-Job Training	1-6 s.h.

Students have the opportunity to focus on courses that will be most appropriate to help prepare them for employment. However, each student should seek the advice of the program coordinator and/or his/her advisor in making course selections.

Quotable Quote:

The world is before you, and you need not take it or leave it as it was when you came in.

-James Baldwin

COURSE DESCRIPTIONS - (Degree Programs)

Administrative Secretary
Administrative Legal Secretary
Administrative Medical Secretary/ Transcription Specialist Option

15:101 Introduction to Business (3 s.h.) An overview of the phases and functions of the business enterprise. Units of instruction include the organization, financing, production, and contemporary issues in business. The course provides an awareness and understanding of the complexities of the business world. (45-0)

15:107 Keyboarding for Office Technology (3 s.h.) Prerequisite: 15:112, Keyboarding Level I, and/or 15:113, Keyboarding Level II, OR keyboarding skill of 30 wam (words a minute) with 3 or less errors on a 3-minute timed writing. This course covers the continued development of speed and accuracy on the alphabetic, numeric, and symbol keys. Students develop skills in formatting, producing, and proofreading the following documents: memos, letters, envelopes, tables, reports, and other miscellaneous business documents. (30-30)

15:109 Introduction to Accounting (3 s.h.) A basic understanding of the process of collecting and using financial information in business. (45-0)

15:110 Electronic Calculators (1 s.h.) [Structured or Open Entry/Open Exit] A study of the 10-key, electronic calculator. Applied business problems on the calculator. This course has been designated as a pass/no pass course. (5-20)

15:118 Accounting Procedures (3 s.h.) An introductory course using a procedural approach applying the principles of debit and credit, recording of data in various journals, posting to the ledgers, the worksheet, financial statements, adjusting and closing entries, depreciation and inventory methods, plant assets, deferrals and accruals. (45-0)

15:120 Business Law I (3 s.h.) Law as applied to business transactions and business relationships. An introduction to jurisprudence and the courts, contracts, commercial paper, sales, and security agreements. (45-0)

15:121 Business Law II (3 s.h.) Prerequisite: 15:120, Business Law I, recommended. A continuation of 15:120. Agencies, corporations, partnerships, bailments, real property, wills, trusts, insurance, bankruptcy, and government regulation of business. Some information on international law and liability of accountants. (45-0)

15:122 Legal Office Procedures (5 s.h.) Prerequisite: 15:211, Word Processing, and 15:212, Business Communication. Management of a lawyer's office that includes topics covering general legal documents, personal and real property, business organizations and meetings, bankruptcies, wills and estates, civil cases, and family law. Includes using a word processor, developing transcription skills, using the Internet to access information, filing, handling telephone services, discussing professionalism, applying grammar rules, and taking care of general office administration. Students are expected to spend time outside of class working in the computer lab. (60-30)

15:134 Computer Applications (3 s.h.) Emphasis on business applications of computer software. Students do business problems using word processing, electronic spreadsheet, and database management software. Students are also exposed to Windows operating systems, presentation software, and the Internet. (30-30)

15:136 Advanced Document Processing (3 s.h.) Prerequisites: 15:134, Computer Applications, and 15:211, Word Processing. Students will learn intermediate to advanced functions of Microsoft Word including customizing templates, recording macros, creating on-screen forms, managing long documents, creating hyperlinks, and publishing on the World Wide Web. Upon completion of the course, the students may be prepared to take the MOUS (Microsoft Office User Specialist) expert exam for Microsoft Word 2000. (30-30)

15:140 Introduction to Computers and Information Systems (3 s.h.) Emphasis on computer literacy and business applications of computer software. Students do business problems using electronic spreadsheets, word processing software, database management software, and presentation software. Students also are exposed to some programming and web page development. (45-0)

15:142 Principles of Management (3 s.h.) 15:101, Introduction to Business, is recommended. Provides students with a general introductory management learning experience. Role of management in today's business environment; management's influence on employee productivity, employee satisfaction and organizational effectiveness; major control devices of management. (45-0)

15:150 Accounting Principles I (3 s.h.) An introductory accounting course: analyzing transactions, matching principle, adjusting and closing entries, financial statements, receivables, inventories, fixed assets and intangible assets, current liabilities, corporations (capital stock transactions, dividends, income and taxes, stockholder's equity, investment in stocks), bonds payable, investment in bonds. (45-0)

15:175 Electronic Spreadsheets (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, or 15:134, Computer Applications. Learn the fundamentals of spreadsheets, databases, and business graphics using appropriate software. (30-30)

15:211 Word Processing (2 s.h.) This course is designed to introduce students to computers and the fundamentals of word processing. The students will progress from basic through intermediate features of word processing software. Also Open Entry/Open Exit. (20-20)

15:212 Business Communication (3 s.h.) This course will help the student become an effective communicator in the business world. Basic written communication will be emphasized through practice in grammar structure, vocabulary building, and organization of thoughts. These skills will then be implemented when the student plans and writes business letters and interoffice memorandums. A secondary emphasis will be placed on oral communication, listening skills, and nonverbal communication. (45-0)

15:218 Professional Office Procedures (4 s.h.) Prerequisite: 15:211, Word Processing and 15:212, Business Communication. Office procedures and techniques necessary to perform general office duties. Includes using a word processor, developing transcription skills, using the Internet to access information, filing, handling telephone services, discussing professionalism, applying grammar rules, and taking care of general office administration. Students are expected to spend time outside of class working in the computer lab. (40-30)

15:221 Marketing (3 s.h.) A study of the role of marketing in society as well as a study of target market (customer) determination and selection, product strategy, channels of distribution, pricing concepts and promotional activities that are used in business today. (45-0)

15:225 Microsoft Access (1 s.h.) This course is designed to take students through the core competencies for Microsoft Access in preparation for the Microsoft Office User Specialist (MOUS) certification test. (5-20)

15:226 Microsoft PowerPoint (1 s.h.) This course is designed to take students through the core competencies for Microsoft PowerPoint in preparation for the Microsoft Office User Specialist (MOUS) certification test. (5-20)

15:227 Microsoft Outlook (1 s.h.) The course is designed to take students through the core competencies for Microsoft Outlook in preparation for the Microsoft Office User Specialist (MOUS) certification test. (5-20)

15:228 Software Integration (1 s.h.) The student will integrate concepts learned from Microsoft Word, Access, PowerPoint, Excel, and Outlook in a project approach. (5-20)

15:241 Human Relations (3 s.h.) The study of how people satisfy both personal growth needs and organizational goals in their careers. Although also interested in the why of human behavior, human relations goes further and looks at what can be done to anticipate problems, resolve them, or prevent them from happening. This field emphasizes knowledge that can be applied in practical ways to problems of interpersonal relations at work or in our personal life. Significant developments in recent years in the workplace have increased the importance of interpersonal skills in almost every type of work setting; these trends provide support for the necessity of acquiring competence in human relations. (45-0)

15:249 Medical Transcription I (3 s.h.) This course is designed to simulate medical transcription practices used in a healthcare environment. The main objective is to provide the student with knowledge of the content and formats of medical documents and reports typically dictated in physicians' offices, hospital clinics, and hospital ancillary and support facilities. (15-60)

15:250 Basic Medical Insurance and Coding (2 s.h.) Prerequisite: 15:251, Medical Terminology I, and 94:104, Body Structure and Function. This course will provide the students with an overview of medical health insurance claims, submission guidelines, and basic coding procedures. In addition, the student will work through a number of relevant case studies. (30-0)

15:251 Medical Terminology I (3 s.h.) A study of medical terminology which should be taken concurrently with 70:250, Anatomy and Physiology, or 94:104, Body Structure and Function, as a part of the Medical Secretary and Medical Assistant curriculum. Introduction of basic medical terminology utilizing a programmed, word-building system to learn word parts to construct and analyze new terms. Emphasis is placed on spelling, definition, usage, and pronunciation. (45-0)

15:252 Medical Terminology II (3 s.h.) Prerequisite: None. However, 15:251, Medical Terminology I is highly desirable. A continuation of 15:251. To be taken concurrently with 70:251, Anatomy & Physiology, by those in the Medical Secretary curriculum. A brief review of basic medical terminology followed by a systems approach to learning terms associated with the anatomical, physiological, and pathological aspects of the body. Classifications of associated pharmaceutical agents are studied with each related system. (45-0)

15:256 Medical Transcription II (3 s.h.) Prerequisite 15:249, Medical Transcription I. This course is designed to introduce students to hospital dictation. The students will progress through various levels of dictation including some advanced documents. (15-60)

15:259 Medical Office Procedures (3 s.h.) Prerequisite: 15:211, Word Processing, and 15:212, Business Communication. Management of a medical office that includes preparing correspondence and patient records, using the Internet to access information, filing, handling telephone services, making and keeping appointments, developing transcription skills, composing letters, discussing professionalism, applying grammar rules, and taking care of general office duties. Also includes medical ethics and etiquette, medical law, and use of a computer for word processing. Students are expected to spend time outside of class working in the computer lab. (45-0)

15:265 Medical Transcription III (3 s.h.) Prerequisites: 15:249, Medical Transcription I. This course is designed to introduce students to live medical dictation from the clinical and radiology settings. The students will also be applying the issues of confidentiality and using medical reference books. (15-60)

15:280 On-the-Job Training (1-3 s.h.) On-the-Job Training is designed to provide a student an opportunity to apply his/her skills in a job setting. The On-the-Job experience is coordinated with an identified school coordinator and on-site sponsor. This is repeatable credit for a maximum of 6 hours. (0-60 to 180)

30:101 Communication Skills I (4 s.h.) Improvement of skills in reading, writing, speaking, and listening, with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

30:102 Communication Skills II (4 s.h.) Prerequisite: 30:101, Communication Skills I. Students must have earned a "C" or higher grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101 with an emphasis on argumentative and persuasive writing and speaking, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

70:101 Biological Principles (3 s.h.) Study of organismic biology including organization, metabolism, and reproduction of living systems. Includes evolutionary patterns, inheritance, growth, development, ecosystems, and structure-function relationships among organisms. (45-0)

70:102L Biological Principles Laboratory (1 s.h.) Prerequisite: Credit for 70:101 or current enrollment in 70:101. (0-30)

70:111 Human Biology (4 s.h.) Course provides overview of human biology for nonscience majors. Includes study of cells, tissues, organs, and systems with emphasis on interrelatedness. Coverage also includes genetics, aging, human ecology, and aspects of various human diseases. (45-30)

70:250 Anatomy and Physiology I (4 s.h.) Prerequisite: 70:111, Human Biology or 70:101, Biological Principles, highly recommended. A study of the human body emphasizing the complementary nature of structure and function, molecular and cellular interactions, homeostasis, and metabolic processes. A cadaver section constitutes a major portion of the laboratory exercises. 70:250 includes a study of cells, tissue, membranes, skeletal, muscular, and reproductive systems. (45-30)

70:251 Anatomy and Physiology II (4 s.h.) Prerequisite: Successful completion of 70:250, Anatomy and Physiology I, strongly recommended. A continuation of 70:250, Anatomy and Physiology I. Includes a study of the circulatory, respiratory, digestive, endocrine, and nervous systems. Cadaver sections continued, plus kidney, brain, and eye dissections. (45-30)

80:120 Introduction to American Government (3 s.h.) A survey of the American federal system of government including a description and analysis of the constitution, the legislative, executive and judicial branches of government, and the American political process. (45-0)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

90:134 Basic Pharmacology (2 s.h.) Provides a basic foundation of the study of drugs including general concepts, biological factors affecting the action of drugs, and effects of medications on body systems. Includes allergy overview, the medication order, and discussion of legal and ethical issues related to pharmacology. (30-0)

90:140 Laboratory Tests (1 s.h.) To familiarize the student with lab tests and their normal ranges in the areas of hematology, urology, and microbiology. (15-0)

90:141 Clinical Procedures I (4 s.h.) Assist physician with examinations and treatments, prepare patients for examinations and diagnostic procedures, administer first aid and CPR, maintain and use aseptic techniques, obtain and record patient data. Perform routine tests, sterilize instruments, and learn related terminology. (45-30)

90:147 Pathophysiology (3 s.h.) Prerequisite: 15:251, Medical Terminology I; 70:250, Anatomy & Physiology I; and Corequisite: 70:251, Anatomy & Physiology II. Presents clinical disorders and diseases commonly treated in physical therapy. Pathology, etiology, diagnosis, signs, symptoms, and prognosis will be covered. (45-0)

94:104 Body Structure and Function (4 s.h.) A basic study of the anatomy and physiology of the human body. Study progresses from the cell to tissues, organs and systems with emphasis on their interrelatedness. Discussion includes some of the alterations which occur in illness. Usage of applicable medical terminology is stressed. (45-30)

General Secretary - Diploma

The General Secretary Program is designed to prepare students for employment with financial institutions, retail establishments, manufacturers, private organizations, and Civil Service.

The graduate's duties include keyboarding, filing, record keeping, operating office machines, transcribing, using a computer for word processing, handling telephone services, and taking care of general office administration.

NIACC's office technology classrooms are equipped with the latest in computers, office machines, and equipment and are staffed by qualified instructors in the secretarial field.

Upon satisfactory completion of the prescribed curriculum (at least 30 semester hours) with an average grade point of 2.00 (*C*), the student is awarded a diploma.

ENTRANCE REQUIREMENTS

High school graduation or the equivalent.

Successful graduates can find job opportunities in the following occupational areas:

* Secretary
* Records manager
* Machine transcriber
* Receptionist
* Information processing operator

REQUIRED COURSES/SUGGESTED SCHEDULE

First Term

15:107*	Keybrdng for Office Technology	3 s.h.
15:109	Intro to Accounting	3 s.h.
	OR 15:118 Acctg. Procedures (3 s.h.)	
	OR 15:150 Acctg. Prin. (3 s.h.)	
15:110	Electronic Calculators	1 s.h.
15:134	Computer Applications	3 s.h.
	OR 15:140 Introduction to Computers and Information Systems (3 s.h.)	
15:211	Word Processing	2 s.h.
15:212	Business Communication	3 s.h.
		15 s.h.

*Prerequisite: 15:112, 15:113, OR ability to pass keyboarding test at 30 wam with 3 errors or less

Second Term

15:175*	Electronic Spreadsheets	3 s.h.
15:218**	Professional Office Procedures	4 s.h.
89:150	Employment Strategies	1 s.h.
	Business Electives	7 s.h.
		15 s.h.

*Prerequisite: 15:134 or 15:140

**Prerequisites: 15:211 and 15:212

Recommended Electives

15:101	Introduction to Business	3 s.h.
15:136	Advanced Document Processing	3 s.h.
15:225	Microsoft Access	1 s.h.
15:226	Microsoft PowerPoint	1 s.h.
15:227	Microsoft Outlook	1 s.h.
15:228	Software Integration	1 s.h.
15:241	Human Relations	3 s.h.
15:280	On-the-Job Training	1-6 s.h.

Legal Secretary - Diploma

The Legal Secretary Program is designed to prepare students for employment with law offices, insurance companies, financial institutions, courts and police departments, as well as in legal departments of business firms and government offices.

The graduate's duties include preparing letters, memos, court and client documents; filing; handling telephone services; making appointments and receiving clients; ordering supplies; making travel arrangements; taking care of general office administration; and using a computer for word processing.

NIACC's office technology classrooms are equipped with the latest in computers, office machines, and equipment and are staffed by qualified instructors in the secretarial field.

Upon satisfactory completion of the prescribed curriculum (at least 30 semester hours) with an average grade point of 2.00 (*C*), the student is awarded a diploma.

ENTRANCE REQUIREMENTS

High school graduation or the equivalent.

Successful graduates can find job opportunities in the following occupational areas:

* Legal secretary
* Legal transcriber
* Appointment clerk
* Receptionist
* Legal records manager
* Legal information processing operator

REQUIRED COURSES/SUGGESTED SCHEDULE

First Term

15:107*	Keybrdng for Office Technology	3 s.h.
15:109	Intro to Accounting	3 s.h.
	OR 15:118 Acctg. Procedures (3 s.h.)	
	OR 15:150 Acctg. Prin. (3 s.h.)	
15:110	Electronic Calculators	1 s.h.
15:134	Computer Apps.	3 s.h.
	OR 15:140 Introduction to Computers and Information Systems (3 s.h.)	
15:211	Word Processing	2 s.h.
15:212	Business Communication	3 s.h.
		15 s.h.

*Prerequisite: 15:112, 15:113, OR ability to pass keyboarding test at 30 wam with 3 errors or less

Second Term

15:120	Business Law I	3 s.h.
15:122*	Legal Office Procedures	5 s.h.
89:150	Employment Strategies	1 s.h.
	Elective	6 s.h.
		15 s.h.

*Prerequisites: 15:211 and 15:212

Recommended Electives

15:101	Introduction to Business	3 s.h.
15:136	Advanced Document Processing	3 s.h.
15:175	Electronic Spreadsheets	3 s.h.
15:225	Microsoft Access	1 s.h.
15:226	Microsoft PowerPoint	1 s.h.
15:227	Microsoft Outlook	1 s.h.
15:228	Software Integration	1 s.h.
15:241	Human Relations	3 s.h.
15:280	On-the-Job Training	1-6 s.h.

Medical Secretary - Diploma

The Medical Secretary Diploma Program is designed to prepare students for employment in physicians' offices, hospitals, clinics, public health departments, Civil Service, medical laboratories, pharmaceutical houses, insurance companies, business and industrial firms with large medical departments, and foundations devoted to medical research.

The graduate's duties include preparing correspondence and medical records, filing, mailing, ordering supplies, handling telephone services, making appointments and receiving visitors, taking care of general office administration, and using a computer for word processing.

NIACC's office technology classrooms are equipped with the latest in computers, office machines, and equipment and are staffed by qualified instructors in the secretarial field.

Upon satisfactory completion of the prescribed curriculum (at least 30 semester hours) with an average grade point of 2.00 (*C*), the student is awarded a diploma.

ENTRANCE REQUIREMENTS
High school graduation or the equivalent.

Successful graduates can find job opportunities in the following occupational areas:

* Medical secretary
* Medical records manager
* Medical information processing operator
* Appointment clerk
* Receptionist

REQUIRED COURSES/SUGGESTED SCHEDULE

First Term

15:107*	Keybrdng for Office Technology	3 s.h.
15:211	Word Processing	2 s.h.
15:212	Business Communication	3 s.h.
15:251	Medical Terminology I	3 s.h.
94:104	Body Structure & Function	4 s.h.
		15 s.h.

*Prerequisite: 15:112, 15:113 OR ability to pass keyboarding test at 30 wam with 3 errors or less

Second Term

15:109	Intro to Accounting	3 s.h.
	OR 15:118 Acctg. Procedures (3 s.h.)	
	OR 15:150 Acctg. Prin. (3 s.h.)	
15:110	Electronic Calculators	1 s.h.
15:250*	Basic Medical Insurance and Coding	2 s.h.
15:252	Medical Terminology II	3 s.h.
15:259**	Medical Office Procedures	3 s.h.
89:150	Employment Strategies	1 s.h.
90:134	Pharmacology	2 s.h.
		15 s.h.

*Prerequisites: 94:104 and 15:251
**Prerequisites: 15:211 and 15:212

Medical Transcription - Diploma

The Medical Transcription Diploma Program is designed to prepare students for employment in physicians' offices, hospitals, clinics, public health departments, Civil Service, medical laboratories, pharmaceutical houses, insurance companies, business and industrial firms with large medical departments, and foundations devoted to medical research.

NIACC's office technology classrooms are equipped with the latest in computers, office machines, and equipment and are staffed by qualified instructors in the field.

Upon satisfactory completion of the prescribed curriculum (at least 30 semester hours) with an average grade point of 2.00 *(C)*, the student is awarded a diploma.

ENTRANCE REQUIREMENTS
High school graduation or the equivalent. Keyboarding speed of at least 45 words per minute with no more than two errors.

REQUIRED COURSES/SUGGESTED SCHEDULE

First Term

15:249	Medical Transcription I	3 s.h.
15:211	Word Processing	2 s.h.
15:212	Business Communication	3 s.h.
15:251	Medical Terminology I	3 s.h.
94:104	Body Structure and Function	4 s.h.
	OR 70:111 Human Biology (4 s.h.)	
		15 s.h.

Second Term

15:252	Medical Terminology II	3 s.h.
15:256*	Medical Transcription II	3 s.h.
15:265*	Medical Transcription III	3 s.h.
90:140	Lab Tests	1 s.h.
90:134	Pharmacology	2 s.h.
	Electives (Strongly recommend	4 s.h.
	70:111 Human Biology or	
	70:250 Anatomy & Physiology I)	
		16 s.h.

*Prerequisites: 15:249

Software Applications Specialist - Certificate

The Software Applications Specialist - Certificate is designed to expose students to Microsoft software and prepare students to take the Microsoft Office User Specialist (MOUS) examination.

These courses are business electives and may apply to diplomas or degrees. Many of these courses are offered on an arranged basis or on line.

Upon satisfactory completion of the prescribed curriculum (at least 15 semester hours) with an average grade point of 2.00 (C), the student is awarded a certificate.

ENTRANCE REQUIREMENTS
High school graduation or the equivalent.

REQUIRED COURSES

15:134	Computer Applications	3 s.h.
15:136*	Advanced Document Processing	3 s.h.
15:175**	Electronic Spreadsheet	3 s.h.
15:211	Word Processing	2 s.h.
15:225	Microsoft Access	1 s.h.
15:226	Microsoft PowerPoint	1 s.h.
15:227	Microsoft Outlook	1 s.h.
15:228***	Software Integration	1 s.h.
		15 s.h.

* Prerequisites: 15:134 and 15:211

**Prerequisites: 15:134 or 15:140

***Prerequisites: 15:134, 15:136, 15:175, 15:211, 15:225, 15:226, and 15:227

COURSE DESCRIPTIONS - Diploma Programs

General Secretary
Legal Secretary
Medical Secretary
Medical Transcription
Software Applications Specialist

15:101 Introduction to Business (3 s.h.) An overview of the phases and functions of the business enterprise. Units of instruction include the organization, financing, production, and contemporary issues in business. The course provides an awareness and understanding of the complexities of the business world. (45-0)

15:107 Keyboarding for Office Technology (3 s.h.) Prerequisite: 15:112, Keyboarding Level I, and/or 15:113, Keyboarding Level II, OR keyboarding skill of 30 wam (words a minute) with 3 or less errors on a 3-minute timed writing. This course covers the continued development of speed and accuracy on the alphabetic, numeric, and symbol keys. Students develop skills in formatting, producing, and proofreading the following documents: memos, letters, envelopes, tables, reports, and other miscellaneous business documents. (30-30)

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15:110 Electronic Calculators (1 s.h.) [Structured or Open Entry/Open Exit] A study of the 10-key, electronic calculator. Applied business problems on the calculator. This course has been designated as a pass/no pass course. (5-20)

15:118 Accounting Procedures (3 s.h.) An introductory course using a procedural approach applying the principles of debit and credit, recording of data in various journals, posting to the ledgers, the worksheet, financial statements, adjusting and closing entries, depreciation and inventory methods, plant assets, deferrals and accruals. (45-0)

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15:252 Medical Terminology II (3 s.h.) Prerequisite: None. However, 15:251, Medical Terminology I is highly desirable. A continuation of 15:251. To be taken concurrently with 70:251, Anatomy & Physiology, by those in the Medical Secretary curriculum. A brief review of basic medical terminology followed by a systems approach to learning terms associated with the anatomical, physiological, and pathological aspects of the body. Classifications of associated pharmaceutical agents are studied with each related system. (45-0)

15:256 Medical Transcription II (3 s.h.) Prerequisite 15:249, Medical Transcription I. This course is designed to introduce students to hospital dictation. The students will progress through various levels of dictation including some advanced documents. (15-60)

15:259 Medical Office Procedures (3 s.h.) Prerequisite: 15:211, Word Processing, and 15:212, Business Communication. Management of a medical office that includes preparing correspondence and patient records, using the Internet to access information, filing, handling telephone services, making and keeping appointments, developing transcription skills, composing letters, discussing professionalism, applying grammar rules, and taking care of general office duties. Also includes medical ethics and etiquette, medical law, and use of computer for word processing. Students are expected to spend time outside of class working in the computer lab. (45-0)

15:265 Medical Transcription III (3 s.h.) Prerequisites: 15:249, Medical Transcription I. This course is designed to introduce students to live medical dictation from the clinical and radiology settings. The students will also be applying the issues of confidentiality and using medical reference books. (15-60)

15:280 On-the-Job Training (1-3 s.h.) On-the-Job Training is designed to provide a student an opportunity to apply his/her skills in a job setting. The On-the-Job experience is coordinated with an identified school coordinator and on-site sponsor. This is repeatable credit for a maximum of 6 hours. (0-60 to 180)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

90:134 Pharmacology (2 s.h.) Provides a basic foundation of the study of drugs including general concepts, biological factors affecting the action of drugs, and effects of medications on body systems. Includes allergy overview, the medication order, and discussion of legal and ethical issues related to pharmacology. (30-0)

90:140 Laboratory Tests (1 s.h.) To familiarize the student with lab tests and their normal ranges in the areas of hematology, urology, and microbiology. (15-0)

94:104 Body Structure and Function (4 s.h.) A basic study of the anatomy and physiology of the human body. Study progresses from the cell to tissues, organs and systems with emphasis on their interrelatedness. Discussion includes some of the alterations which occur in illness. Usage of applicable medical terminology is stressed. (45-30)

Medical Assistant

Information regarding the Medical Assistant Program can be found in the Health Section of Career Programs.

Are you considering transferring to a four-year college or university?

Students who earn associate degrees in the Business programs at NIACC may wish to apply their studies toward a bachelor's degree in business-related fields at a four-year college or university. For further information on such options in business studies as accounting, business education, entrepreneurship, finance, insurance, management, management information systems, marketing, and real estate at Buena Vista University, Drake University, Iowa State University, Minnesota State University-Mankato, Simpson College, University of Iowa, University of Northern Iowa, Upper Iowa University, and Wartburg College, please see pages 125-149 in the catalog or speak with a NIACC advisor.

HEALTH

Donna Orton, Division Head
(641) 422-4216

Medical Assistant

Medical Laboratory Technician

Nursing - Associate Degree

Nursing - Practical

Physical Therapist Assistant

For information regarding other health programs:

Medical Secretary 62
Chiropractic 136
Medical Technology 147
Mortuary Science 147
Nursing — Baccalaureate Degree 148
Occupational Therapy 149
Optometry 149
Pharmacy 149
Physical Therapy 151
Physician 151
Physician Assistant 151
Radiology 152
Veterinary Medicine 153

Medical Assistant

The Medical Assistant program is designed to prepare men and women to function as members of the health care delivery team and perform administrative and clinical procedures. This most often occurs in ambulatory settings such as medical offices and clinics.

Administrative duties include scheduling and receiving patients, preparing and maintaining medical records, performing basic secretarial skills and medical transcription, handling telephone calls, writing correspondence, serving as liaison between the physician and other individuals, and managing practice finances.

Clinical duties include asepsis and infection control, taking patient histories and vital signs, performing first aid and CPR, preparing patients for procedures, assisting the physician with examinations and treatments, collecting and processing specimens, performing selected diagnostic tests, and preparing and administering medications as directed by the physician.

NIACC's classrooms include the latest in computers, office, and laboratory equipment. The program is accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) on recommendation of the Committee of Accreditation for Medical Assistant Education.

Students must attain a grade point average of 2.00 (*C*) in program courses to proceed to the practicum. (A minimum grade of "C-" is allowed in Medical Office Procedures, Clinical Procedures I and II, and a minimum grade of "C" is required in Medical Terminology.) In addition, students must meet all course requirements prior to beginning the practicum. The student may be required to travel a distance for the externship. Externships are randomly assigned to the student and available sites are dependent on the permission of the specific agency.

Further information regarding progression in the program and specific program policies is provided to the MA student in the individual program handbook. Students are provided this handbook during the first MA class day. Students are referred to this handbook throughout the program.

Upon completion of the prescribed curriculum with a 2.00 GPA and a minimum overall cumulative college grade point average of 2.00, the student is awarded a diploma from NIACC. In addition, the student is eligible for the national certification examination to become a CMA (Certified Medical Assistant).

Beginning with the January 2001 administration of the Certification Examination, a student with a felony record will not be eligible for Certification Examination unless the CB (Curriculum Board) grants a waiver based on one or more of the mitigating circumstances listed in the *Disciplinary Standards.* The student can verify certification eligibility prior to entering the program by contacting the CB at the following address: AAMA (American Association of Medical Assistants), 20 North Wacker Drive, Ste. 1575, Chicago, IL 60606-2903.

A night class sequencing is also available for this program if numbers are sufficient. If the program is being extended beyond a one-year period, courses 90:141 and 90:142 are required to be taken during the final year of the course of study.

ENTRANCE REQUIREMENTS

High school graduation or the equivalent is necessary for entrance into the program. Students are encouraged to meet with the counselor prior to program enrollment to arrange for assessment in keyboarding, reading, writing, and math to determine if additional course work is required to promote success. A physical examination providing evidence of current immunization and sound physical and mental health is also required prior to 90:141, Clinical Procedures I.

PRESCRIBED CURRICULUM

First Term

15:211	Word Processing	2 s.h.
15:212	Business Communication	3 s.h.
15:251	Medical Terminology I	3 s.h.
90:141	Clinical Procedures I	4 s.h.
94:104	Body Structure and Function	4 s.h.
	OR Anatomy and Physiology I and II	
		16 s.h.

Second Term

15:109	Introduction to Accounting	3 s.h.
15:110	Electronic Calculators	1 s.h.
15:241	Human Relations	3 s.h.
15:250	Basic Medical Insurance and Coding	2 s.h.
15:259	Medical Office Procedures	3 s.h.
89:150	Employment Strategies	1 s.h.
90:142	Clinical Procedures II	4 s.h.
		17 s.h.

Summer Term (only Eight Weeks)

90:208	Medical Assistant Externship	**6 s.h.**

Course Descriptions - Medical Assistant

15:109 Introduction to Accounting (3 s.h.) A basic understanding of the process of collecting and using financial information in business. (45-0)

15:110 Electronic Calculators (1 s.h.) [Structured or Open Entry/Open Exit] A study of the 10-key, electronic calculator. Applied business problems on the calculator. This course has been designated as a pass/no pass course. (5-20)

15:211 Word Processing (2 s.h.) This course is designed to introduce students to computers and the fundamentals of word processing. The students will progress from basic through intermediate features of word processing software. Also Open Entry/Open Exit. (20-20)

15:212 Business Communication (3 s.h.) This course will help the student become an effective communicator in the business world. Basic written communication will be emphasized through practice in grammar structure, vocabulary building, and organization of thoughts. These skills will then be implemented when the student

plans and writes business letters and interoffice memorandums. A secondary emphasis will be placed on oral communication, listening skills, and nonverbal communication. (45-0)

15:241 Human Relations (3 s.h.) The study of how people satisfy both personal growth needs and organizational goals in their careers. Although also interested in the why of human behavior, human relations goes further and looks at what can be done to anticipate problems, resolve them, or prevent them from happening. This field emphasizes knowledge that can be applied in practical ways to problems of interpersonal relations at work or in our personal life. Significant developments in recent years in the workplace have increased the importance of interpersonal skills in almost every type of work setting; these trends provide support for the necessity of acquiring competence in human relations. (45-0)

15:250 Basic Medical Insurance and Coding (2 s.h.) Prerequisite: 15:251, Medical Terminology I, and 94:104, Body Structure and Function. This course will provide the students with an overview of medical health insurance claims, submission guidelines, and basic coding procedures. In addition, the student will work through a number of relevant case studies. (30-0)

15:251 Medical Terminology I (3 s.h.) A study of medical terminology which should be taken concurrently with 70:250, Anatomy and Physiology, or 94:104, Body Structure and Function, as a part of the Medical Secretary and Medical Assistant curriculum. Introduction of basic medical terminology utilizing a programmed, word-building system to learn word parts to construct and analyze new terms. Emphasis is placed on spelling, definition, usage, and pronunciation. (45-0)

15:259 Medical Office Procedures (3 s.h.) Prerequisite: 15:211, Word Processing, and 15:212, Business Communication. Management of a medical office that includes preparing correspondence and patient records, using the Internet to access information, filing, handling telephone services, making and keeping appointments, developing transcription skills, composing letters, discussing professionalism, applying grammar rules, and taking care of general office duties. Also includes medical ethics and etiquette, medical law, and use of a computer for word processing. Students are expected to spend time outside of class working in the computer lab. (45-0)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

90:141 Clinical Procedures I (4 s.h.) Assist physician with examinations and treatments, prepare patients for examinations and diagnostic procedures, administer first aid and CPR, maintain and use aseptic techniques, obtain and record patient data. Perform routine tests, sterilize instruments, and learn related terminology. If taking curriculum beyond a one-year period, this course should be taken during the final year of the curriculum, (45-30)

90:142 Clinical Procedures II (4 s.h.) Prerequisite: 90:141, Clinical Procedures I. A continuation of Clinical Procedures I with emphasis on pharmacology, administration of medications, electrocardiography and the circulatory system. Principles of radiography and nutrition. Collection and testing of laboratory specimens, including phlebotomy. If taking curriculum beyond a one-year period, this course should be taken during the final year of the curriculum, (45-30)

90:208 Medical Assistant Externship (6 s.h.) An eight-week term of practical experience in selected physicians' offices, clinics, or laboratories. It offers the students an opportunity to perform various clinical and office procedures under the supervision of the physician or assistant and the instructor/coordinator. This course has been designated as a pass/no pass course. (0-270)

94:104 Body Structure and Function (4 s.h.) A basic study of the anatomy and physiology of the human body. Study progresses from the cell to tissues, organs and systems with emphasis on their interrelatedness. Discussion includes some of the alterations which occur in illness. Usage of applicable medical terminology is stressed. (45-30)

Medical Laboratory Technician

(Cooperative Program with Hawkeye Community College)

The Medical Laboratory Technician program prepares men and women to work under the supervision of the medical technologist, pathologist, or other qualified physician in a medical laboratory. A technician performs tests that aid in the diagnosis and treatment of disease.

Specific tasks which the Medical Laboratory Technician might perform include collection of blood and other specimens, preparation and examination of stained slides of blood cells or bacteria, microscopic examination of urine, blood, and other body fluids, grouping and typing of blood, and the analysis of body fluids for chemical components.

This program is offered jointly by NIACC and Hawkeye Community College. The first two semesters of the program may be taken at NIACC and the completion of the program is taken at Hawkeye Community College, Waterloo, Iowa. The final semester of the program is provided in the clinical setting, which may occur in a location of the student's choice. This placement, however, is dependent on a space available basis in the agency of choice. Upon completion of the prescribed curriculum, the student is awarded an associate in applied science degree and is then prepared to work in hospital laboratories, clinics, physicians' offices, public health agencies, research institutions, and the armed forces. The program is accredited by the Committee on Allied Health Education and Accreditation and the National Accrediting Agency for Clinical Laboratory Sciences.

Graduates of the Medical Laboratory Technician Program are eligible for the national certification examination.

Medical Laboratory Technicians may continue their education and become Medical Technologists.

ENTRANCE REQUIREMENTS

The applicant must meet at least one of the following groups of requirements and be a high school graduate or the equivalent to be eligible for admission to the Medical Laboratory Technology Program.

1. Be in the upper one-third of high school graduating class (or GED percentile average of 75 or above) and one year of high school Algebra I, Chemistry, and Biology with a "B" grade or higher in each semester.

   OR

2. Be a high school or GED graduate. Score at least the following standard scores on each COMPASS Test (42 on Algebra, 82 on Reading, and 65 on Writing) or a 20 standard score on each ACT: Math, Reading, and English subtests and have one year of high school Algebra I, Chemistry, and Biology with a "B" grade or higher in each semester

   OR

3. Successfully complete the following courses at NIACC or comparable courses at Hawkeye Community College:

   30:090 Basic Writing
   30:120 College Reading Skills
   40:060 Beginning Algebra
   70:101 Biological Principles AND
   70:102 Biological Principles Lab
   70:140 Introductory Chemistry

   All course work above must be completed with a 2.00 GPA.

   OR

4. Any combination of the above requirements in 2 and 3 for algebra, reading, writing, chemistry, and biology that fulfill all 5 basic requirements.

The required related courses may be taken prior to enrolling or during the time the student is enrolled in the program. However, it is recommended that the curriculum be followed once the student is enrolled.

Students who withdraw from the program will be readmitted on a space-available basis. Preference will be given to those students who have been academically successful.

CURRICULUM

First Semester - NIACC

30:101	Communication Skills	3 s.h.
70:100	Intro to Lab Science	2 s.h.
70:140	Introductory Chemistry	4 s.h.
70:250	Anatomy and Physiology I	4 s.h.
80:110	Sociology OR	
	80:101 General Psychology	3 s.h.
		16 s.h.

Second Semester - NIACC

15:251	Medical Terminology I	3 s.h.
70:109	Microbiology	4 s.h.
70:249	Urinalysis I	3 s.h.
70:251	Anatomy and Physiology II	4 s.h.
85:101	Public Speaking	2 s.h.
		16 s.h.

Summer Session - Hawkeye

112	Fundamental Lab Techniques	3 s.h.
114	Hematology I	3 s.h.
113	Clinical Microbiology I	4 s.h.
		10 s.h.

Third Semester - Hawkeye

216	Immunohematology I	4 s.h.
217	Coagulation	2 s.h.
218	Advanced Hematology	3 s.h.

219	Clinical Chemistry I	6 s.h.
220	Parasitology	1 s.h.
221	Serology	2 s.h.
		18 s.h.

Fourth Semester - Area II Clinical Sites*
(24-week term, clinical internship)

229	Clinical Chemistry II	4 s.h.
224	Hematology II	4 s.h.
223	Clinical Microbiology	4 s.h.
226	Immunohematology II	2 s.h.
231	Serology II	1 s.h.
225	Urinalysis II	1 s.h.
232	Lab Survey & Review	1 s.h.
		17 s.h.

*As identified in the curriculum, this program is offered over a two-year period of time. The first two semesters are taken at NIACC. The next summer session and fall semester are taken at Hawkeye Community College in Waterloo, Iowa. The final semester is a 24-week clinical internship. NIACC and Hawkeye will attempt to secure clinical experiences in the NIACC area (not guaranteed).

Course Descriptions - Medical Laboratory Technician

15:251 Medical Terminology I (3 s.h.) A study of medical terminology which should be taken concurrently with 70:250, Anatomy and Physiology, or 94:104, Body Structure and Function, as a part of the Medical Secretary and Medical Assistant curriculum. Introduction of basic medical terminology utilizing a programmed, word-building system to learn word parts to construct and analyze new terms. Emphasis is placed on spelling, definition, usage, and pronunciation. (45-0)

30:101 Communication Skills I (3 s.h.) Improvement of skills in reading and writing with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing to receive a grade of "C" or higher. (45-0)

70:100 Intro to Lab Science (2 s.h.) This course familiarizes the student with the Medical Laboratory Technician program and the field of laboratory medicine. The organization and role of the clinical laboratory are explored, as well as medical ethics and conduct, employment opportunities, and professional opportunities. (30-0)

70:109 Microbiology (4 s.h.) Morphology, physiology, taxonomy, and relationship of microorganisms to disease. In-depth laboratory study and suitable lecture material with applications to agriculture, industry, and medicine. (45-30)

70:140 Introductory Chemistry (4 s.h.) Prerequisite: 40:060, Beginning Algebra, or equivalent. A first-year college chemistry course which covers the concepts of chemistry. Among the topics included are systems of measurement, matter and energy, atomic theory, energy levels and atomic structure, the periodic table, ionic and covalent bonding, chemical equations, stoichiometry, acids and bases, states of matter, solutions, and redox. Lab experiments are performed and complement the classroom theory. Not accepted as a prerequisite for other advanced chemistry courses except 70:273, Organic Chemistry. Equivalent to University of Iowa 4:7, General Chemistry I. (45-30)

70:249 Urinalysis I (3 s.h.) Prerequisite: 70:100, Intro to Lab Science. This course includes the study of urine formation and methodology determining the physical, chemical, and microscopic properties of urine in normal and abnormal states. (30-30)

70:250 Anatomy and Physiology I (4 s.h.) Prerequisite: 70:111, Human Biology, or 70:101, Biological Principles, highly recommended. A study of the human body emphasizing the complementary nature of structure and function, molecular and cellular interactions, homeostasis, and metabolic processes. A cat dissection constitutes a major portion of the laboratory exercises. 70:250 includes a study of cells, tissue, membranes, skeletal, muscular, and reproductive systems. (45-30)

70:251 Anatomy and Physiology II (4 s.h.) Prerequisite: Successful completion of 70:250, Anatomy and Physiology I, strongly recommended. A continuation of 70:250, Anatomy and Physiology I. Includes a study of the circulatory, respiratory, digestive, endocrine, urinary, and nervous systems. Cat dissections continued, plus kidney, brain, and eye dissections. (45-30)

80:101 General Psychology (3 s.h.) Corequisite: New students with entering ACT or COMPASS reading scores below college level will be required to co-enroll in 30:120, College Reading Skills. An introduction to the scientific study of behavior; a brief history of psychology as a science, and topics fundamental to human behavior including developmental issues, sensory abilities, cognitive performance, social and emotional factors in behavior, and abnormal behavior and therapies. (45-0)

80:110 Sociology (3 s.h.) An introductory survey course, sociology is the scientific study of society. Inquires into what holds societies together, what causes societies to change, and how social forces affect our daily lives. Topics covered include: culture and society, socialization, social research, groups, organizations, institutions, deviance, gender, race and ethnicity. An emphasis is placed on cultural diversity. (45-0)

85:101 Public Speaking (2 s.h.) Public speaking as an intellectual tool for use in argumentation and persuasion in a democratic society. (Offered each term.) (30-0)

Associate Degree Nursing

Associate Degree Nursing is designed to prepare men and women for general staff registered nursing positions which involve direct care of patients. There are two routes of entry into the program — one for beginning regular students and one for Licensed Practical Nurses. For beginning students entering in June, the program can be completed in one summer term and four academic terms. Transfer students are assessed on an individual basis. The Iowa Code authorizes the Iowa Board of Nursing to review past felony convictions prior to determining eligibility for licensure. Individuals considering enrollment or currently enrolled in the nursing program should notify the Iowa Board of Nursing regarding prior felony convictions to ensure eligibility for licensure upon completion of the program.

Students should be aware they may need to travel a distance for clinical experience and that some clinical experiences will be scheduled during evening/night hours and weekends. Criminal/adult abuse checks and drug testing may also be required by individual agencies and the cost will be the responsibility of the student.

Upon satisfactory completion of the prescribed curriculum, the student is awarded an associate in applied science degree and is eligible for the NCLEX-RN exam. After passing this examination, the graduate receives registered nurse status. The program is approved by the Iowa Board of Nursing and accredited by the National League for Nursing Accrediting Commission, 61 Broadway - 33rd Floor, New York, NY 10006, (212-363-5555, ext. 153).

Further information regarding progression in the program and specific program policies is provided to the ADN student in the individual program handbook. Students are provided this handbook during the first ADN class day at the beginning of each year. Students are referred to this handbook throughout the program.

For graduates wishing to obtain a baccalaureate degree in nursing, the ADN program articulates into other BSN programs in Iowa. The University of Iowa College of Nursing offers its satellite RN to BSN Progression Program on the NIACC campus. Through this program RNs may complete all course work for their BSN locally.

ENTRANCE REQUIREMENTS

The applicant must complete the application process through the health professions counselor located in the Student Services office. Admission is based on the following criteria:

1. Completion of a high school diploma or equivalency program
2. Meet two of the following criteria:
   a. Graduated in the upper half of the high school class.
   b. Graduated from high school with a minimum of a 2.5 GPA.
   c. Completed the ACT exam with a composite score of 20 or higher. If the ACT was taken in high school, results are probably recorded on the high school transcript. If the ACT was taken after high school and is not recorded on the high school transcript, results must be forwarded to NIACC. Students with no ACT scores must contact the Admissions Office to take the COMPASS placement assessment.
3. Approved applicants are accepted into the program chronologically, based on the date of application. Completed applications are reviewed beginning in October of the year prior to the June start date and completed by the end of January of each year.

Applicants who do not meet requirements or those with a poor academic history may meet entrance requirements by successfully completing approved college courses. These courses should be discussed with the health professions counselor. Preference is given to students who meet the prerequisites the fall semester prior to anticipated entry into the program. Students currently enrolled in high school are an exception to this.

Prerequisites: The following required courses must be completed with a "C" grade or better.

Mathematics:
Two full-year courses (2 semesters each year) of math in high school (e.g., Algebra I, Algebra II, Geometry) OR
two semesters of college equivalent math (e.g., 40:060, Beginning Algebra; 40:120, Intermediate Algebra)

Science:
Chemistry: two semesters of high school/college preparatory chemistry OR
one semester of college chemistry (e.g., 70:140, Introductory Chemistry)

Biology: two semesters of high school/college preparatory biology OR
one semester of a college biology course (e.g., 70:101, Biology and lab or 70:111, Human Biology and Lab)

Computer Technology:
Since the NCLEX licensing exam is a computerized test, two semesters of high school computer classes or one semester of a computer application class are also strongly recommended.

It is recommended that 4-6 semesters of high school English and 4-6 semesters of social studies be taken. An application to the ADN program, high school transcript, GED scores (if applicable), all college transcripts, and results of the ACT must be in the applicant's folder before the admissions committee takes action on acceptance into the Associate Degree Nursing Program. Upon acceptance, a physical examination providing evidence of current immunization and sound physical and mental health is required. After being accepted into the program, a student may delay entrance into the program no more than two years. A student will be required to reapply to the program after this time period.

The related course requirements scheduled for the fresh man year must be taken in the se quence and time lines in di cated. How ever, the re quired re lated courses (noted with an * in the cur ric u lum) may be taken prior to en roll ing or dur ing the time the stu dent is in the nurs ing pro gram.

Stu dents must at tain a "C" grade in all nurs ing courses and re lated re quired courses. An over all 2.00 GPA in the pre scribed cur ric u lum and a min i mum over all cu mu la tive col lege grade point av er age of 2.00 is re quired for grad u a tion from this pro gram.

Students who withdraw from the pro gram must make for mal ap pli ca tion for re en try and upon ac cep tance will be considered on a space-available ba sis. Re ad mission criteria is addressed in the ADN Student Handbook. A student may re en ter the nurs ing cur ric u lum one time. Op tions will be dis cussed on an in di vid ual basis for students un suc cess ful at any level of the program.

PRESCRIBED CURRICULUM

First Term (Sum mer - 6 weeks)

30:101 Com mu ni ca tion Skills I* (30:101C).....3 s.h.
70:109 Microbiology*.....4 s.h.
90:106 In tro duc tion to Nursing..... 1 s.h.
8 s.h.

Sec ond Term (Fall)

**70:250 Anatomy and Phys i ol ogy I*..... 4 s.h.
80:101 General Psychology*.....3 s.h.
80:230 Hu man Growth and De vel op ment*.....3 s.h.
90:108 Nursing I..... 7 s.h.
17 s.h.

Third Term (Spring)

70:200 Nutrition*..... 3 s.h.
**70:251 Anat omy and Phys i ol ogy II* .....4 s.h.
90:111 Nursing II .....10 s.h.
17 s.h.

** Anat omy and Phys i ol ogy I and II must be com pleted within five years of be gin ning the nurs ing com po nent of the cur ric u lum.

Fourth Term (Fall)

80:110 Sociology*..... 3 s.h.
90:210 Nursing III .....12 s.h.
15 s.h.

Fifth Term (Spring)

30:102 Com mu ni ca tion Skills II* (30:102C).....3 s.h.
90:211 Nursing IV.....12 s.h.
15 s.h.

*Courses which may be taken prior to en ter ing the nursing program. Once in the nursing program, courses must be taken in the iden ti fied se quence.

NOTE: Prior to Nursing I, stu dents are re quired to ob tain CPR certification for the adult, child and in fant, and cur rent cer tif i ca tion must be main tained through out the du ra tion of the pro gram. They may se lect ei ther Ame ri can Heart Association or Ame ri can Red Cross classes to sat isfy this re quire ment.

Course De scrip tions - As so ci ate De gree Nursing

30:101C Communication Skills I (3 s.h.) Im prove ment of skills in read ing and writ ing with an em pha sis on ex pos i tory meth ods of de vel op ment and per sonal ex perience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS pro grams, and the struc tur ing sen tences video series. Students must meet minimum com petency re quire ments in writ ing to re ceive a grade of "C" or higher. (45-0)

30:102C Com mu ni ca tion Skills II (3 s.h.) Prerequisite: 30:101C, Communication Skills I. Students must have earned a "C" or higher grade in Com mu ni ca tion Skills I before en roll ing in Com mu ni ca tion Skills II. A con tin u a tion of 30:101C with an em pha sis on ar gu men ta tive and persuasive writing, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Work bench STEPS, and sen tence struc tur ing vid eos. Students must meet minimum competency re quirements in writing to receive a grade of "C" or higher. (45-0)

70:109 Mi cro bi ol ogy (4 s.h.) Mor phol ogy, phys i ol ogy, taxonomy, and re la tion ship of mi cro or gan isms to disease. In-depth lab o ra tory study and suit able lec ture material with applications to agriculture, industry, and med i cine. (45-30)

70:200 Nu tri tion (3 s.h.) Prerequisite: high school or col lege chem is try. In tro duces the scope of the sci ence of nu tri tion and its ap pli ca tion to the nurse's role in promot ing good nu tri tion through out the life span. Prin ciples of diet mod i fi ca tion are pre sented as they re late to spe cific health prob lems. Nursing as sess ment, the patient's nutritional needs, and dietary planning are included. This course may also be taken during the summer be tween the fresh man and soph o more year but must be com pleted prior to Nursing III.(45-0)

70:250 Anat omy and Phys i ol ogy I (4 s.h.) Pre requisite: 70:111, Hu man Bi ol ogy or 70:101, Bi o log i cal Principles, highly rec om mended. A study of the hu man body emphasizing the complementary nature of structure and function, molecular and cellular interactions, homeo sta sis, and met a bolic pro cesses. A cat dis sec tion con sti tutes a ma jor por tion of the lab o ra tory ex er cises. 70:250 in cludes a study of cells, tis sue, mem branes, skel e tal, mus cu lar, and re pro duc tive sys tems. (45-30)

70:251 Anat omy and Phys i ol ogy II (4 s.h.) Pre requisite: Successful completion of 70:250, Anatomy and Phys i ol ogy I, strongly rec om mended. A con tin u a tion of 70:250, Anat omy and Phys i ol ogy I. In cludes a study of the circulatory, respiratory, digestive, endocrine, and ner vous sys tems. Cat dis sec tions con tin ued, plus kidney, brain, and eye dis sec tions. (45-30)

80:101 General Psychology (3 s.h.) Corequisite: New students with entering ACT or COMPASS reading scores below college level will be required to co-enroll in 30:120, College Reading Skills. An introduction to the scientific study of behavior; a brief history of psychology as a science, and topics fundamental to human behavior including developmental issues, sensory abilities, cognitive performance, social and emotional factors in behavior, and abnormal behavior and therapies. (45-0)

80:110 Sociology (3 s.h.) An introductory survey course, sociology is the scientific study of society. Inquires into what holds societies together, what causes societies to change, and how social forces affect our daily lives. Topics covered include: culture and society, socialization, social research, groups, organizations, institutions, deviance, gender, race and ethnicity. An emphasis is placed on cultural diversity. (45-0)

80:230 Human Growth and Development (3 s.h.) A study of the physical, mental, emotional, and social growth of the person from infancy through adulthood. Discussions include the need for love, affection, and attention; the concept of ego and sense of identity; the need of human bonds; the value of interpersonal dialogue; the capacity to develop intelligence; and the socioeconomic/ethnic influences. (45-0)

90:106 Introduction to Nursing (1 s.h.) An introduction to the philosophy and conceptual framework of the NIACC Associate Degree Nursing program. The course includes basic concepts related to legal and ethical aspects of nursing, nursing roles, and current trends in health care. The student is introduced to wellness-illness theory, therapeutic nurse-patient relationship and effective communication techniques. An introduction to caring concepts is also included. This course has been designated as a pass/no pass course. (15-0)

90:108 Nursing I (7 s.h.) Prerequisite: 90:106, Introduction to Nursing, 70:109, Microbiology, and 30:101C, Communication Skills I. Introduction of the basic nursing concepts and the nursing process with special emphasis on the assessment and nursing diagnosis component. The course progresses from simple to complex, including comfort and safety needs in basic skill development. Includes beginning concepts from the life span, health maintenance, diet modification, psychological health, and pharmacology. Application from the biological, physical, and social sciences are utilized by the student in the care of clients, in long-term care and medical-surgical settings. (60-105)

90:111 Nursing II (10 s.h.) Prerequisite: 90:108, Nursing I; 70:250, Anatomy and Physiology I; 80:230, Human Growth and Development; and 80:101, General Psychology. Utilization of the nursing process with emphasis on planning in meeting client needs resulting from primary assaults on self-esteem as seen in alteration in body structure, body function, lifestyle, self-concept, and interpersonal relationships. Principles of diet modification, pharmacological therapy, mental health concepts, mobility concepts, and health maintenance through the life span are integrated into the progressive development of the student's knowledge and skills. Clinical experiences include opportunities to apply the nursing process in maternal-newborn, pediatrics, and medical-surgical settings. (105-135)

90:210 Nursing III (12 s.h.) Prerequisite: 90:111, Nursing II; or 90:113, Nursing IIA, or consent of Associate Degree Nursing faculty, plus all freshman year nonnursing courses. Utilization of the nursing process with emphasis on implementation in meeting client needs resulting from manifestations of disturbed personal coping, disruptive personal lifestyles, disintegrated life patterns, and impairments in oxygenation and nutrition throughout the life span. Clinical experiences will include opportunities to apply the nursing process in a variety of care settings. (105-225)

90:211 Nursing IV (12 s.h.) Prerequisite: 90:210, Nursing III, or consent of Associate Degree Nursing faculty, plus 80:110, Sociology. Utilization of the nursing process with emphasis on evaluation in meeting client needs resulting from impairments relating to nutrition, elimination, and sensory stimulation throughout the life span. Concepts of management, legal, and ethical aspects of the nursing profession and issues related to current trends are presented. Clinical experiences will focus on clients with complex needs. The management experience is the culmination of the student's academic and clinical education in which the student will have an opportunity to care for several clients and apply basic skills in leadership and conflict management. (105-225)

ADN Option for Licensed Practical Nurses

A limited number of Licensed Practical Nurses who meet the following criteria are eligible to enter the Associate Degree Nursing Program at the sophomore level upon successful completion of the bridge course, 90:113, Nursing IIA. Criteria include: graduation from an approved Practical Nursing Program with a 2.5 cumulative GPA in the nursing courses; a current, unencumbered license; have practiced nursing within the past two years; meet ADN Program prerequisites; and have completed the support courses required during the first year of the ADN Program. If as a practical nursing student, the cumulative GPA for the nursing classes is below 2.5, the returning student would be required to enroll in 90:111, Nursing II. Therefore, the LPN candidate should apply at least a year before the desired date of entering Nursing III to allow for placement in Nursing II, if necessary. One year must transpire from completion of a practical nursing program and entry into the ADN Program. In addition, the student must be employed as an LPN in at least a part-time status during the one-year interval. Individual consideration will be given to applicants who have not practiced nursing within the last two years or who have practiced in a non traditional setting. This may include a challenge examination. A verification of current skills and total hours of employment from the employers will also be used to assess appropriate placement in the program.

Another option available for the Licensed Practical Nurse to enter the second year of the ADN program is if the student has met the following criteria:

a. Previously met entrance requirements for the ADN program and has been enrolled until mid term of Nursing I of the ADN program.

b. Has attained a "C" in all support courses that would be required at the completion of Nursing II in the ADN program.

c. Has attained a 2.50 GPA in the nursing component of the PN program.

d. Has successfully passed NCLEX-PN and presents a copy of the license to the Division Head.

e. Has an overall college GPA of 2.00.

Eighteen semester hours of first year nursing credit will be awarded upon successful completion of Nursing III, the first course with a clinical component. In the event a student is not successful in Nursing IIA or Nursing III, the student will be required to apply for re entry into the program for the second semester of the freshman year on a space-available basis.

Students should be aware they may need to travel a distance for clinical experience and that some clinical experiences will be scheduled during evening/night hours and weekends. Criminal/adult abuse checks and drug testing may also be required by individual agencies and the cost will be the responsibility of the student.

Prerequisites: The following required courses must be completed with a grade of "C" or better.

Mathematics:
Two full-year courses (2 semesters each year) of math in high school (e.g., Algebra I, Algebra II, Geometry) OR two semesters of college equivalent math (e.g., 40:060, Beginning Algebra; 40:120, Intermediate Algebra)

Science:
Chemistry: two semesters of high school/college preparatory chemistry OR
one semester of college chemistry, 70:140, Introductory Chemistry

Biology: two semesters of high school/college preparatory biology OR
one semester of a college biology course, 70:101, Biology and lab or 70:111, Human Biology and lab

Computer Technology:
Since the NCLEX-RN exam is a computerized test, computer competencies are strongly recommended.

Other elements of the selection process include high school and college GPA and ACT scores. All criteria for the ADN Program apply and should be reviewed. This information must be in the applicant's file before the admissions committee will act on the application. Upon acceptance, a physical examination providing evidence of current immunization and sound physical and mental health is required.

Since the applicant's progress toward meeting prerequisites and admission requirements must be tracked, applicants to the Licensed Practical Nursing to Associate Degree Nursing Program must complete the application process through the health professions counselor located in the Student Services Office. Expected date of graduation will determine when the application to the program must be submitted.

Students must attain a "C" grade in all ADN courses and related required courses. An overall 2.00 GPA in the prescribed curriculum and a minimum overall cumulative college grade point average of 2.00 is required for graduation from this program.

Further information regarding progression in the program and specific program policies is provided to the ADN student in the individual program handbook. Students are provided this handbook during the first ADN class day. Students are referred to this handbook throughout the program.

The following are the support courses required prior to beginning the nursing aspect of the curriculum. These courses must be completed with a minimum of a "C" grade.

30:101	Communication Skills I (30:101C)	3 s.h.
70:109	Microbiology	4 s.h.
70:200	Nutrition	3 s.h.
*70:250	Anatomy and Physiology I	4 s.h.

*70:251 Anatomy and Physiology II.....4 s.h.
80:101 General Psychology ..... 3 s.h.
80:230 Human Growth and Development..... 3 s.h.

*** Anatomy and Physiology I and II must be completed within five years of beginning Nursing IIA (90:113)**

PRESCRIBED CURRICULUM

First Term (Summer - one week, end of August)

90:113 Nursing IIA..... 1 s.h.

Second Term (Fall)

80:110 Sociology*..... 3 s.h.
90:210 Nursing III .....12 s.h.
15 s.h.

Third Term (Spring)

30:102 Communications Skills II* (30:102C).....3 s.h.
90:211 Nursing IV.....12 s.h.
15 s.h.

*Courses which may be taken prior to entering the program.

NOTE: Prior to Nursing III, students are required to obtain CPR certification for the adult, child and infant. Students may select either American Heart Association or American Red Cross classes to satisfy this requirement and current certification must be maintained throughout the duration of the program.

Course Descriptions - ADN Option for Licensed Practical Nurses

30:101C Communication Skills I (3 s.h.) Improvement of skills in reading and writing with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing to receive a grade of "C" or higher. (45-0)

30:102C Communication Skills II (3 s.h.) Prerequisite: 30:101C, Communication Skills I. Students must have earned a "C" or higher grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101C with an emphasis on argumentative and persuasive writing, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos. Students must meet minimum competency requirements in writing to receive a grade of "C" or higher. (45-0)

80:110 Sociology (3 s.h.) An introductory survey course, sociology is the scientific study of society. Inquires into what holds societies together, what causes societies to change, and how social forces affect our daily lives. Topics covered include: culture and society, socialization, social research, groups, organizations, institutions, deviance, gender, race and ethnicity. An emphasis is placed on cultural diversity. (45-0)

90:113 Nursing IIA (1 s.h.) Prerequisite: Graduate of approved practical nursing program; hold current, unencumbered practical nurse license, plus successful completion of all freshman nonnursing courses. Provides introduction to program, differentiates roles of LPN and RN, reviews nursing process, presents specific communication techniques, and reviews content in laboratory setting. Students must obtain a passing grade in this course to continue into Nursing, 90:210. If a passing grade is not attained, the student will be required to register for Nursing, 90:111. This course has been designated as a pass/no pass course. (14-2)

90:210 Nursing III (12 s.h.) Prerequisite: 90:111, Nursing II; or 90:113, Nursing IIA, or consent of Associate Degree Nursing faculty, plus all freshman year nonnursing courses. Utilization of the nursing process with emphasis on implementation in meeting client needs resulting from manifestations of disturbed personal coping, disruptive personal lifestyles, disintegrated life patterns, and impairments in oxygenation and nutrition throughout the life span. Clinical experiences will include opportunities to apply the nursing process in a variety of care settings. (105-225)

90:211 Nursing IV (12 s.h.) Prerequisite: 90:210, Nursing III, or consent of Associate Degree Nursing faculty, plus 80:110, Sociology. Utilization of the nursing process with emphasis on evaluation in meeting client needs resulting from impairments relating to nutrition, elimination, and sensory stimulation throughout the life span. Concepts of management, legal, and ethical aspects of the nursing profession and issues related to current trends are presented. Clinical experiences will focus on clients with complex needs. The management experience is the culmination of the student's academic and clinical education in which the student will have an opportunity to care for several clients and apply basic skills in leadership and conflict management. (105-225)

Practical Nursing

Practical Nursing is designed to prepare individuals to work in nursing situations which are relatively stable and unchanging. They are also prepared to assist experienced registered nurses and physicians in nursing situations that are complex and changing. The Iowa Code authorizes the Iowa Board of Nursing to review past felony conviction prior to determining eligibility for licensure. Individuals considering enrollment or currently enrolled in the nursing program should notify the Iowa Board of Nursing regarding prior felony convictions to ensure eligibility for licensure upon completion of the program.

Students should be aware they may need to travel a distance for clinical experience and that some clinical experiences will be scheduled during evening/night hours and weekends. Criminal/adult abuse checks and drug testing may also be required by individual agencies and the cost will be the responsibility of the student.

Students must attain a "C" grade in all nursing courses and at least a "C-" in related required courses. However, an overall 2.00 GPA in the prescribed curriculum and a minimum overall cumulative college grade point average of 2.00 is required for graduation from this program. If the student wishes to later seek application to the ADN program, a cumulative GPA of 2.5 in the nursing courses must be attained, as well as a "C" grade in all support courses required for the ADN program. If the student has not attained a 2.5 cumulative nursing course GPA, the student will be required to enroll in Nursing II, 90:111, of the ADN program.

Upon satisfactory completion of the prescribed curriculum, a diploma is awarded and the graduate is eligible for the NCLEX-PN exam. After passing this examination, the graduate receives licensed practical nurse status and is prepared to work in a beginning licensed practical nurse position under the supervision of qualified personnel. The program is approved by the Iowa Board of Nursing.

ENTRANCE REQUIREMENTS

The applicant must complete the application process through the health professions counselor located in the Student Services Office. Entrance requirements include the following criteria:

1. Completion of a high school diploma or equivalency program.
2. Completion of high school with a grade point average of 2.00 or higher.
3. Satisfactory COMPASS assessment test results in reading, writing, and math (these are administered by NIACC).
4. Approved applicants are accepted into the program chronologically, based on the date of application. Completed applications are reviewed beginning in October of the year prior to the June start date and completed by the end of January of each year.

Applicants who do not meet requirements or those with a poor academic history may meet entrance requirements by successfully completing approved college courses and/or increasing assessment test results in an approved manner. This should be discussed with the health professions counselor.

Biology, general math (Basic Math, Mathematics for Decision Making, Algebra), and six semesters of English are recommended prior to applying to the program. Since the NCLEX-PN exam is a computerized test, a computer class is strongly recommended. An application to the Practical Nursing Program, high school transcript, GED scores (if applicable), and all college transcripts must be in the applicant's folder before the Admissions Committee takes action on acceptance into the Practical Nursing Program. After acceptance, a physical examination providing evidence of current immunization and sound physical and mental health is required.

Applicants who have been previously enrolled in an approved nursing program may request consideration for advanced standing.

Students must complete all course requirements in the first two terms before enrolling in the third term. Students should be aware they may need to travel a distance for clinical experience and that some clinical experiences will be scheduled during evening hours and weekends.

Students who withdraw from the program must make formal application for re-entry and upon acceptance will be considered on a space-available basis. After being accepted into the program, a student may delay entrance into the program no more than two (2) years. A student will be required to reapply to the program after this period of time. Readmission criteria is addressed in the PN Student Handbook. A student may re-enter the nursing curriculum one time.

Further information regarding progression in the program and specific program policies is provided to the PN student in the individual program handbook. Students are provided this handbook during the first PN class day. Students are referred to this handbook throughout the program.

PRESCRIBED CURRICULUM

First Term (Summer - 6 weeks)

30:101 Communication Skills I* (30:101C).....3 s.h.
94:101 Practical Nursing Arts I.....4 s.h.
94:104A Body Structure and Function** .....4 s.h.
OR Anatomy and Physiology I and II

11 s.h.

** Body Structure and Function must be completed within five years of beginning the nursing component of the curriculum.

Second Term (Fall)

80:101	General Psychology*	3 s.h.
94:102	Practical Nursing Arts II	8 s.h.
94:103	Practical Nursing: Maternal, Infant, and Child Care	5 s.h.
		16 s.h.

Third Term (Spring)

80:230	Human Growth and Development*	3 s.h.
94:110	Practical Nursing in Physical/Mental Illness of Adults	13 s.h.
		16 s.h.

*Courses which may be taken prior to entering the nursing program.

NOTE: Prior to enrolling in the fall semester of the program, students are required to obtain CPR certification for the adult, child, and infant, and current certification must be maintained throughout the duration of the program. They may select either American Heart Association or American Red Cross classes to satisfy this requirement.

Course Descriptions - Practical Nursing

30:101C Communication Skills I (3 s.h.) Improvement of skills in reading and writing with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing to receive a grade of "C" or higher. (45-0)

80:101 General Psychology (3 s.h.) Corequisite: New students with entering ACT or COMPASS reading scores below college level will be required to co-enroll in 30:120, College Reading Skills. An introduction to the scientific study of behavior; a brief history of psychology as a science, and topics fundamental to human behavior including developmental issues, sensory abilities, cognitive performance, social and emotional factors in behavior, and abnormal behavior and therapies. (45-0)

80:230 Human Growth and Development (3 s.h.) A study of the physical, mental, emotional, and social growth of the person from infancy through adulthood. Discussions include the need for love, affection, and attention; the concept of ego and sense of identity; the need of human bonds; the value of interpersonal dialogue; the capacity to develop intelligence; and the socioeconomic/ethnic influences. (45-0)

94:101 Practical Nursing Arts I (4 s.h.) Prerequisite/Corequisite: 94:104, Body Structure and Function, 30:10C Communication Skills I. Orientation to nursing and the role of the practical nurse in the health community, history of nursing, ethical principles, legal nursing assessment, basic nursing skills, and practice of nursing skills in college laboratory. (45-30)

94:102 Practical Nursing Arts II (8 s.h.) Prerequisite: 94:101, Practical Nursing Arts I; 94:104, Body Structure and Function; and 30:101C, Communication Skills I. Prerequisite/Corequisite: 80:101, General Psychology. A continuation of 94:101. Continued development of basic skills, nursing assessment, creating and maintaining the physical environment, physical and psychological supportive measures, basic scientific principles of therapeutic nursing interventions and documentation, introduction to pharmacology and the administration of medications, normal nutrition, and therapeutic diets. Supervised practice in a college laboratory, long-term care nursing facilities, and medical-surgical settings. (75-120)

94:103 Practical Nursing: Maternal, Infant, and Child Care (5 s.h.) Prerequisite: 94:101, Practical Nursing Arts I; 30:101, Communication Skills I; 94:104A, Body Structure and Function. Prerequisite/Corequisite: 80:101, General Psychology. Offers the student basic knowledge about the family from the prenatal experience through labor and delivery to nursing care of the postpartum family and newborn. Includes an orientation to the nursing care of children in relation to normal growth and development through adolescence, as well as the effect of illness and hospitalizations on the child and family. Supervised clinical experience is provided in a birth center, a pediatric unit, and selected community agencies. (60-45)

94:104A Body Structure and Function (4 s.h.) A basic study of the human body. Study progresses from the cell to tissues, organs, and systems with emphasis on their interrelatedness. Discussion includes some of the alterations which occur in illness. Usage of applicable medical terminology is stressed. (45-30)

94:110 Practical Nursing in Physical-Mental Illness of Adults (13 s.h.) Prerequisite: 94:101, Practical Nursing Arts I; 94:102, Practical Nursing Arts II; 94:103, Practical Nursing: Maternal, Infant and Child Care; 94:104A, Body Structure and Function; and 80:101, General Psychology. Prerequisite/Corequisite: 80:230, Human Growth and Development. Utilization of the nursing process to develop basic skills in providing nursing care for patients with common health problems associated with each body system. Continuation of pharmacology and nutrition, beginning management skills and responsibilities of a licensed practical nurse, trends in nursing, preparation for licensure, and employment. Supervised clinical experience in medical/surgical areas, and surgical patient follow-through, mental health, home care and nursing facilities. (105-292)

Physical Therapist Assistant

The Physical Therapist Assistant Program is designed to prepare individuals to work under the supervision of a Physical Therapist in the delivery of physical therapy services. Responsibilities can include: implementing treatment programs according to the Physical Therapist's plan of care, training patients in exercises and activities of daily living, administering modalities such as ultrasound, electrical stimulation, whirl pool, and other treatment procedures, and communicating with the Physical Therapist on the patient's progress.

Physical Therapist Assistants are employed at a variety of settings including but not limited to the following: hospitals, private practice clinics, rehabilitation centers, home health agencies, sports injury clinics, long-term care facilities, industrial settings, and schools.

The program is two academic years in length including one summer. Students must attain a "C" grade in all PTA courses, achieve a "pass" grade in all clinical assignments, and a "C-" grade in all support courses to progress through the program. Minimum standards for graduation are a GPA of 2.00 in the prescribed curriculum and a minimum overall cumulative college grade point average of 2.00. Upon completion of the curriculum, the student is awarded an associate in applied science degree. The program is accredited by the Commission on Accreditation in Physical Therapy Education, 111 N. Fairfax Street, Alexandria, VA 22314, Telephone (703)706-3245. Graduates are eligible to sit for the licensure examination. Criminal/adult abuse checks and drug testing may also be required by individual agencies and the cost will be the responsibility of the student.

ENTRANCE REQUIREMENTS

The applicant must complete the application process through the health professions counselor located in the Student Services Office. Entrance requirements include the following criteria:

1. Have a high school diploma or its equivalent.
2. Meet two of the three following criteria:
   a. Graduated in the upper half of the high school class.
   b. Graduated from high school with a minimum of a 3.00 GPA.
   c. Achieved an ACT composite score of 20 or higher.

   If the ACT was taken while in high school, the results are probably on the high school transcript. If the ACT was taken following high school, results must be forwarded to NIACC. Students with no ACT score must contact the Admissions Office to take the COMPASS placement assessment.

Applicants who do not meet the above requirements or those with a poor academic history may meet entrance requirements by successfully completing approved college courses. This should be discussed with the health professions counselor.

An applicant's file will not be reviewed until all application criteria have been submitted.

Prerequisites: The following courses must be completed with a grade of "C-" or better:

Mathematics:
Four semesters of high school/college preparatory math (e.g., Algebra I, Algebra II, Geometry) OR
Two semesters of college math (e.g., 40:060, Beginning Algebra, 40:120, Intermediate Algebra)

Science:
Two semesters of high school/college preparatory biology OR
One semester of college biology (e.g., 70:101, Biology Principles and lab or 70:111, Human Biology and lab)

Two semesters of high school/college preparatory chemistry or physics OR
One semester of college chemistry (e.g., 70:140, Introductory Chemistry) or physics (e.g., 70:122, Principles of Physics)

Computer Technology:
The student must provide evidence of knowledge of basic computer hardware and software functions, including proper use of e-mail and the Internet.

After acceptance, a physical examination documenting current immunization and abilities to perform program requirements is needed. Students are also required to obtain CPR certification for the adult, child, and infant. Current certification is required and must be maintained throughout the duration of the program. They may select either American Heart Association or American Red Cross classes to satisfy this requirement.

Students who withdraw from the program must make formal application for reentry and upon acceptance will be considered on a space-available basis. Readmission criteria is addressed in the PTA Student Handbook. A student may reenter the PTA curriculum once. After being accepted into the program, a student may delay entrance into the program no more than two (2) years. A student will be required to reapply to the program after this period of time.

Further information regarding progression in the program and specific program policies is provided to the PTA student in the individual program handbook. Students are provided this handbook during the first PTA class day. Students are referred to this handbook throughout the program.

PRESCRIBED CURRICULUM

First Term (Fall)

*15:251	Medical Terminology OR	3 s.h.
	*90:145 PTA Terminology (1 s.h.)	
*70:250	Anatomy and Physiology I	4 s.h.
*80:101	General Psychology	3 s.h.
90:149	Introduction to PTA	2 s.h.
90:144	Fundamentals for PTA	3 s.h.

* 00:000 Humanities Elective++ ..... 3 s.h.
16-18 s.h.

Second Term (Spring)

90:136 Introduction to the Clinic (1 week) ..... 1 s.h.
*30:101 Communications Skills I (30:101C) ..... 3 s.h.
OR *30:101 Communications Skills (4 s.h.)
*70:149 Kinesiology ..... 3 s.h.
*70:251 Anatomy and Physiology II ..... 4 s.h.
*90:146 Developmental Processes ..... 3 s.h.
90:159 PTA Modalities ..... 4 s.h.
90:137 PTA Clinic I (2 weeks) ..... 2 s.h.
20-21 s.h.

Third Term (Summer - 7 weeks)

90:147 Pathophysiology ..... 3 s.h.
90:150 PTA Assessment Procedures ..... 3 s.h.
90:138 PTA Clinic II (2 weeks) ..... 2 s.h.
8 s.h.

Fourth Term (Fall)

*30:102 Communication Skills II (30:102C) ..... 3 s.h.
OR *30:102 Communication Skills II (4 s.h.)
90:212 Therapeutic Exercise ..... 3 s.h.
90:213 Orthopedics ..... 3 s.h.
90:214 Neurology ..... 4 s.h.
90:215 PTA Management ..... 2 s.h.
15-16 s.h.

Fifth Term (Spring)

90:218 PTA Clinic III (8 weeks) ..... 7 s.h.
90:219 PTA Clinic IV (6 weeks) ..... 5 s.h.
90:217 PTA Seminar ..... 1 s.h.
13 s.h.

*Courses which may be taken prior to entering the program, but prerequisites may need to be taken. Anatomy and Physiology must be taken within five years of beginning the program. Kinesiology must be taken within three years of starting the program. Once enrolled in the program, courses must be taken in the identified sequence. Courses 90:136, 90:137, 90:138, 90:218 and 90:219 will be assigned a pass/no pass grade and will not be calculated in the student's GPA.

++Humanities elective may be taken any time prior to Term V.

The student should be aware that the clinical experience hours necessitate travel to various hospitals and clinics and may necessitate housing expenses. Each individual clinical site may have specific requirements that vary (e.g., 10-hour days, background checks, urinalysis tests). The student is responsible for all costs and must comply with clinical requirements in order to be provided with an affiliation.

Course Descriptions - Physical Therapist Assistant

90:145 PTA Terminology (1 s.h.) Prerequisite: None. Includes an orientation to the vocabulary of medicine with emphasis on terminology related to rehabilitation. (15-0)

90:149 Introduction to PTA (2 s.h.) Prerequisite: None. This course provides an overview of the physical therapy profession and the role of the physical therapist assistant, including legal and ethical aspects of practice. Students will be introduced to the patient care process, be instructed in documentation, and given much opportunity to work on their communication skills. Includes an introduction to the Clinical Education component of the program. (30-0)

90:144 Fundamentals for PTA (3 s.h.) Prerequisite: None. This course provides a foundation in physical therapy interventions by covering basic assessment and measurement techniques that the PTA can utilize to monitor patients as well as basic treatment interventions such as range of motion and transfers. Purposes of all skills, proper techniques, and safety considerations will be addressed. Students will have lab time to apply, practice, and demonstrate skills they are taught. (30-30)

90:136 Introduction to the Clinic (1 s.h.) Prerequisite: 15:251, Medical Terminology or 90:145, PTA Terminology; 90:149, Introduction to PTA; and 90:144, Fundamentals for the PTA. Skills, knowledge, and attitudes learned will be applied to direct patient care in selected clinical settings. Includes application/integration of PTA course work with the goal of student providing quality care with uncomplicated patients and a high degree of supervision and guidance. (0-40)

70:149 Kinesiology (3 s.h.) Prerequisite: 70:250, Anatomy & Physiology I. Provides a basic understanding of normal human body movement as related to skeletal, articular, neurological, and muscular systems. Levers, torques, center of gravity, base of support and their relationship to posture, balance, and movement will be addressed. The student will learn anatomical palpations and the basics of human gait. (30-30)

90:146 Developmental Processes (3 s.h.) Prerequisite: 80:101, General Psychology. Presents normal physical, cognitive, social, and emotional developmental processes which affect an individual throughout the life span. Emphasis on integration of all aspects of human development and additional focus on application of physical processes to the field of physical therapy. Observational experience included. (45-0)

90:159 PTA Modalities (4 s.h.) Prerequisite: 90:144, Fundamentals for PTA. Prepares the student for safe and effective application of modalities for patient treatment. Mechanisms of action, indications, contraindications and treatment procedures will be covered for the following: heat, electromagnetic radiation, cold, massage, biofeedback, external compression, whirlpool, wound care, traction, and electrical stimulation. Pain and skin assessment will be included. Students will practice applications in lab. (37.5-45)

90:137 PTA Clinic I (2 s.h.) Prerequisite: 15:251, Medical Terminology or 90:145, PTA Terminology; 90:149, Introduction to PTA; and 90:144, Fundamentals for the PTA; 70:149, Kinesiology; 90:146, Developmental Processes; and 90:159, PTA Modalities. Skills, knowledge,

and attitudes learned in Developmental Processes, Kinesiology, and PTA Modalities will be applied to direct patient care in selected clinical settings. Includes application/integration of all PTA course work with the goal of student providing quality care with uncomplicated to complex patients and a degree of supervision and guidance that will vary with the complexity of the patient or the environment. This course has been designated as a pass/no pass course. (0-80)

90:147 Pathophysiology (3 s.h.) Prerequisite: 15:251, Medical Terminology or 90:145, PTA Terminology; 70:250, Anatomy & Physiology I; and 70:251, Anatomy & Physiology II. Presents clinical disorders and diseases commonly treated in physical therapy. Pathology, etiology, diagnosis, signs, symptoms, prognosis and implications for rehabilitation will be covered. (45-0)

90:150 PTA Assessment Procedures (3 s.h.) Prerequisites: 90:149, Introduction to the PTA; 90:144, Fundamentals for PTA; and 70:149, Kinesiology. This course provides an in-depth look at various assessment skills performed and utilized by the PTA. Special emphasis will be on theory, application procedures, and documentation of findings when utilizing goniometry and manual muscle testing in the clinic setting. Students will have an opportunity in the lab portion to apply, practice, and demonstrate techniques they are taught. (30-30)

90:138 PTA Clinic II (2 s.h.) Prerequisite: 15:251, Medical Terminology or 90:145, PTA Terminology; 90:149, Introduction to PTA; and 90:144, Fundamentals for the PTA; 70:149, Kinesiology; 90:146, Developmental Processes; 90:159, PTA Modalities; 90:147, Pathophysiology; and 90:150, PTA Assessment Procedures. Skills, knowledge, and attitudes learned in Pathophysiology and PTA Assessment Procedures will be applied to direct patient care in selected clinical settings. Includes application/integration of all PTA course work, with the goal of the student providing quality care with uncomplicated to complex patients and a degree of supervision/guidance that will vary with the complexity of the patient or environment. This course has been designated as a pass/no pass course. (0-80)

90:212 Therapeutic Exercise (3 s.h.) Prerequisite: 90:144, Fundamentals for PTA, and 90:149, Kinesiology. This course studies the physiological effects of exercise on the musculoskeletal, cardiovascular, and pulmonary systems. Physical therapy treatment techniques to improve strength, flexibility, cardiovascular and pulmonary functions are presented. Treatment programs for specific diagnoses such as diabetes, pregnancy, and amputation are addressed. Students will practice techniques in lab. (30-30)

90:213 Orthopedics (3 s.h.) Prerequisite: 70:250 and 70:251, Anatomy and Physiology I and II, and 90:149, Kinesiology. Principles of fracture and soft tissue healing are applied to musculoskeletal injuries and disorders. Injuries, disorders, and function specific to each joint are covered. Physical therapy treatment for specific joint injuries are presented. Students will practice techniques in lab. (30-30)

90:214 Neurology for the PTA (4 s.h.) Prerequisites: 70:250, Human Anatomy and Physiology I; 70:251, Human Anatomy and Physiology II; 90:147, Pathophysiology; 90:146, Developmental Processes. This course will provide information, discussion, and treatment considerations with neurologically based diagnoses. Emphasis will be on exploring clinical manifestations and treatment considerations with all the disorders with special emphasis on cardiovascular accidents. Typical treatment techniques, exercise programs, and treatment progression will be applied to lab scenarios with a variety of neurological diagnoses. Students will have an opportunity in the lab portion to apply, practice, and demonstrate techniques they are taught. (45-30)

90:215 PTA Management (2 s.h.) Prerequisite: All previous PTA technical courses. Includes the basic principles of management including levels of authority and responsibility, supervisory process, performance appraisals, and policies and procedures. The process of quality assurance and chart audits are discussed. Varieties of reimbursement systems and their impact on health care delivery are discussed. Resume writing, interviewing, and employability skills will be covered. Ethical and legal issues in the practice of physical therapy will also be examined. (30-0)

90:218 PTA Clinic III (7 s.h.) Prerequisite: All PTA courses except 90:217, PTA Seminar. Skills, knowledge, and attitudes will be applied to direct patient care in selected clinical settings. Includes application and integration of all PTA course work with the goal of the student consistently and efficiently providing quality care with uncomplicated to complex patients and a moderate to low degree of supervision/guidance except when addressing new and highly complex situations. This course has been designated as a pass/no pass course. (0-320)

90:219 PTA Clinic IV (5 s.h.) Prerequisite: All PTA courses except 90:217, PTA Seminar. Skills, knowledge, and attitudes learned in all PTA course work will be applied to direct patient care in selected clinical settings. Includes application and integration of all PTA course work with the goal of the student consistently and efficiently providing quality care with uncomplicated to complex patients. The student usually needs no further guidance or supervision except when addressing new and highly complex situations. This course has been designated as a pass/no pass course. (0-240)

90:217 PTA Seminar (1 s.h.) Prerequisite: All PTA courses. This course will focus on the role of the PTA in helping patients achieve optimal mobility and become as independent as possible with functional activities. Lecture and discussions will incorporate students' experiences from PTA Clinic III and PTA Clinic IV so that each student has time to process and consider these learning experiences. All aspects of patient care will be addressed and case study presentations will be included to assist with problem-solving skills. (15-0)

Are you considering transferring to a four-year college or university?

Students who earn associate degrees in the Health programs at NIACC may wish to apply their studies toward a bachelor's degree in health-related fields at a four-year college or university. For further information on such options as dentistry, nursing, occupational therapy, optometry, pharmacy, physical therapy, physician, physician assistant, radiology, and rehabilitation services at Drake University, St. Ambrose College, and the University of Iowa, please refer to pages 125-149 in the catalog or speak with a NIACC advisor.

REGIONAL HEALTH

Marge Wasicek, Director
Regional Health Education Center
(641) 422-7100

The Regional Health Education Center is a partnership with NIACC and North Iowa Mercy Health Care Center.

A.A.S. Paramedic

Emergency Medical Technician Basic (EMT-B)

Emergency Medical Technician Intermediate (EMT-I)

Emergency Medical Technician Paramedic (EMT-P)

Nurse Aide

A.A.S. Paramedic

The Paramedic Program is composed of three levels of training and certification. The three levels are: Emergency Medical Technician-Basic (EMT-B), Emergency Medical Technician-Intermediate (EMT-I), and Emergency Medical Technician-Paramedic (EMT-P). The courses are developed in a ladder sequence. The EMT-B courses are offered two to three times annually at various locations. The EMT-I courses are offered yearly, and EMT-P courses are offered every other year or as needed. The courses are offered evenings and weekends. All levels require completion of clinical experience. The EMT-I and EMT-P courses require completion of field experience with an advanced emergency medical service.

Program graduates may obtain employment or volunteer with public or private agencies employing emergency medical personnel who have successfully passed state and/or national certification examinations. Employers may also require psychological and physical dexterity examinations as a prerequisite for such employment. The College assumes no responsibility for paying for such examinations.

Upon successful completion of the two-year program, the graduate is awarded an associate in applied science degree.

Individuals who have completed the EMT-B, EMT-I, or EMT-P course prior to college credit approval and are currently certified in the state of Iowa may receive college credit. This college credit may be obtained for a nominal fee upon program completion and certification, upon submission of a qualification statement and supporting evidence of current certification and continuing education, and upon successful completion of the NIACC final test (80 per cent or higher score).

ENTRANCE REQUIREMENTS FOR EMT-B:

1. Be at least 17 years of age at the time of enrollment.
2. Be proficient in writing, reading, and speaking English.
3. Hold or be eligible to obtain a current driver's license.
4. Be physically and emotionally capable of performing basic emergency care skills.
5. Current certification at the Basic Cardiac Life Healthcare Providers course with the American Heart Association.

Note: Criminal and adult abuse checks may also be required by individual agencies and the cost will be the responsibility of the student.

ENTRANCE REQUIREMENTS FOR EMT-I and EMT-P:

1. Be at least 17 years of age at the time of enrollment.
2. High school diploma or general education equivalent.
3. Maturity of judgment, sound moral character and health status to provide reasonable assurance that the student will meet the physical and mental demands of the occupation.
4. Evidence of successful completion in BCLS Healthcare Providers course.
5. Evidence of successful completion of a course of training for EMT-Basic.
6. Evidence of certification as an EMT-Basic for the state of Iowa.
7. A recommendation by the Advance Care Training Admission Committee attesting to the applicant's attitude, professionalism, motivation, dependability, and desire to follow instructions and orders with reliability.

**Note: Criminal and adult abuse checks may also be required by individual agencies and the cost will be the responsibility of the student.

A physical examination and immunization record are required prior to beginning hospital clinicals at all levels of course work. The immunization requirements include receiving the hepatitis B vaccine or signing a waiver.

EMS - RELATED COURSES

89:195	EMT-B: Part I	4 s.h.
89:196	EMT-B: Part II	2 s.h.
89:175	EMT-I	4 s.h.
89:171	EMT-Paramedic: Part I	6 s.h.
89:172	EMT-Paramedic: Part II	7 s.h.
89:173	EMT-Paramedic: Part III	3 s.h.
89:174	EMT-Paramedic Part IV	3 s.h.
		29 s.h.

The required related courses may be taken prior to enrolling, during the time the student is enrolled in the program, or after completion of the sequential curriculum.

Required Courses

30:101	Communication Skills I	4 s.h.
30:102	Communication Skills II	4 s.h.
40:121	Mathematics for Decision Making	3 s.h.
70:250	Anatomy and Physiology I	4 s.h.
70:251	Anatomy and Physiology II	4 s.h.
80:101	General Psychology	3 s.h.
80:230	Human Growth & Development	3 s.h.

Other Recommended Related Electives

15:140	Introduction to Computers and Information Systems	3 s.h.
15:142	Principles of Management	3 s.h.
15:241	Human Relations	3 s.h.

Course Descriptions

89:171 EMT-P: Part I (6 s.h.) Prerequisite: EMT-B and EMT-I State of Iowa Certification, or 89:189, EMT-I: Part I. This course provides the student with advanced prehospital training. It includes roles and responsibilities, overview of human systems, emergency pharmacology, airway management, patient assessment, and trauma management (including PHTLS). (60-60)

89:172 EMT-P: Part II (7 s.h.) Prerequisite 89:171, EMT-P: Part I. This course is a continuation of 89:171, EMT-P: Part I. It includes respiratory, cardiac, diabetic, neurological, toxicological, abdominal, gynecological, behavioral, pediatric, geriatric and obstetrical emergencies. (71-69)

89:173 EMT-P: Part III (3 s.h.) Prerequisite 89:171, EMT-P: Part I; 89:172, EMT-P: Part II. This course includes 68 hours of hospital clinical experience and 67 hours of field experience. (0-0-90-45)

89:174 EMT-P: Part IV (3 s.h.) Prerequisite 89:171, EMT-P: Part I; 89:172, EMT-P: Part II; 89:173, EMT-P: Part III. This course includes 67 hours of hospital clinical experience and 68 hours of field experience. (0-0-45-90)

89:175 EMT-I (4 s.h.) Prerequisite: EMT-B State of Iowa Certification. This class provides the student with advanced skills to provide emergency care and transport. It includes roles and responsibilities, legal aspects, EMS system and communications, patient assessment, advanced airway management, shock management, including intravenous therapy and defibrillation. It also includes 45 hours of clinical/field experience. (30-30-45)

89:195 EMT-B: Part I (4 s.h.) This class provides the student with the necessary knowledge and skill to perform basic emergency care and transport. It includes an introduction preparation module, airway management module, patient assessment module, and medical, behavioral, and obstetrical/gynecological emergencies module. Six hours of clinical in the hospital and nursing home is also included. (47-30)

89:196 EMT-B: Part II (2 s.h.) Prerequisite 89:195, EMT-B: Part I. This course is a continuation of 89:195. It includes a trauma module, infants and children module, and operations module. Twelve hours of clinical in the hospital is also included. (20-26)

Nurse Aide

The Nurse Aide course prepares individuals to work in long-term care facilities (LTC) and hospitals.

Nurse Aide classes are offered monthly in the NIACC area. Upon completion of the Nurse Aide course, a state written test and a skills demonstration test must be completed with a score of 70 percent or better. Passing these tests is required in order to be placed on the Department of Inspections and Appeals Nurse Aide Registry. Placement on the Iowa Nurse Aide Registry is necessary to be employed as a nurse aide in long-term care in Iowa; this includes nursing facilities and skilled nursing units in hospitals.

ENTRANCE REQUIREMENTS FOR NURSE AIDE

1. Must be 16 years or older.
2. High school diploma or GED. (Note: if you are currently in high school, you must submit a letter of acknowledgment from your high school counselor.)
3. Strength and endurance to meet the requirements in performing skills such as lifting and moving residents.
4. Physical exam by a physician. This must be completed prior to the clinical portion of the course.
5. Current immunization records are required prior to beginning clinical. The immunization requirements include Rubella titer, TB test, hepatitis B vaccine, or signing a waiver for the hepatitis vaccine.

**Note: Criminal and adult abuse checks may also be required by individual agencies and the cost will be the responsibility of the student.

Course Descriptions

89:164 (2 s.h.) 89:165 (1 s.h.) Nurse Aide Theory and Clinical. This 75-hour nurse aide course has been designed to meet the training requirements of The Omnibus Budget Reconciliation Act of 1987 (OBRA) for aides working in nursing facilities (NF) and skilled nursing facilities (SNF). Emphasis in the course is on students achieving a basic level of knowledge and demonstrating skills to provide safe, effective resident care. The course has been developed in six units of study. The theory portion includes 30 hours of classroom time and 15 hours of laboratory practice. The clinical experience includes 30 hours in a nursing facility.

For further information, contact the Health Occupations counselor at 1-888-GO NIACC, ext. 4207 or 641-422-4207.

Quotable Quote:

It's important that people should know what you stand for. It's equally important that they know what you don't stand for.

-Mary H. Waldrip

PUBLIC SERVICE

Dr. Jim Zirnhelt, Division Head,
Humanities and Social Science
(641) 422-4282

John Sjolinder,
Trade and Industry Coordinator
Continuing Education
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Law Enforcement

The NIACC Law Enforcement curriculum was developed with the assistance of the Law Enforcement Division of the University of Iowa and a local advisory committee of law enforcement officials as an articulated program. The curriculum meets requirements for those personal already employed by law enforcement agencies who wish to obtain further education for professional advancement, as well as for those who desire advanced study in criminology or social welfare.

Graduates may perform duties with police departments, sheriffs' offices, highway patrols, narcotics bureaus, correctional institutions, crime prevention laboratories, industry, and private investigation services. In addition, the United States Government's Secret Service, Immigration Service, Border Patrol, and courts hire a significant number of law enforcement personnel.

Program graduates may obtain immediate employment with public or private agencies concerned with public safety, crime prevention, or the apprehension and rehabilitation of criminals. However, persons considering employment with public agencies should check to determine the necessity of successfully passing psychological and physical dexterity examinations as a prerequisite to such employment. The College assumes no responsibility for paying for such examinations.

Upon successful completion of the two-year program, the graduate is awarded an associate in arts degree and a NIACC Law Enforcement Certificate.

ENTRANCE REQUIREMENTS
High school graduation or the equivalent is necessary.

REQUIRED COURSES

80:190	Criminal Law I	3 s.h.
80:191	Criminal Law II	3 s.h.
80:192	Patrol Procedures	3 s.h.
80:290	Criminal Evidence	3 s.h.
80:291	Administration of Justice	3 s.h.
80:292	Criminal Investigation	3 s.h.
30:101	Communication Skills I*	4 s.h.
30:102	Communication Skills II*	4 s.h.
	Humanities Electives	8 s.h.
60:232	First Aid and Personal Safety	1 s.h.
70:101	Biological Prin. (3 s.h.*) OR	
	70:114 Intro Physical Science (4-5 s.h.*) OR	
	70:122 Principles of Physics (4 s.h.*) OR	
	70:140 Introductory Chemistry (4 s.h.*) OR	
	70:135 General Chemistry I*	4-5 s.h.
80:101	General Psychology*	3 s.h.
	Mathematics*	3-4 s.h.
80:110	Sociology*	3 s.h.
80:120	Intro to American Govt (3 s.h.*) OR	
	80:121 American State/Local Govt*	3 s.h.
80:111	Social Problems (3 s.h.*) OR	
	80:112 Marriage & Family (3 s.h.*) OR	
	80:230 Human Growth & Dev*	3 s.h.

SUGGESTED COURSE

89:100	Cooperative Work Experience	1-5 s.h.

*General Education courses must total at least 40 semester hours to meet A.A. degree requirements. A minimum of 60 semester hours are needed for graduation.

During the 1998-99 school year, an articulation agreement was reached with the Iowa Law Enforcement Academy. This agreement allows up to 15 hours of credit earned at the Academy to be awarded at NIACC.

Course Descriptions - Law Enforcement

30:101 Communication Skills I (4 s.h.) Improvement of skills in reading, writing, speaking, and listening, with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

30:102 Communication Skills II (4 s.h.) Prerequisite: 30:101, Communication Skills I. Students must have earned a "C" or higher grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101 with an emphasis on argumentative and persuasive writing and speaking, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

60:232 First Aid and Personal Safety (1 s.h.) Lecture-type course designed to give the layperson adequate first aid knowledge and skills with emphasis on accident prevention. (15-0)

70:101 Biological Principles (3 s.h.) Study of organismic biology including organization, metabolism, and reproduction of living systems. Includes evolutionary patterns, inheritance, growth, development, ecosystems, and structure-function relationships among organisms. (45-0)

70:114 Intro to Physical Science (4 s.h.) Prerequisite: High school Algebra or equivalent. An introductory college level, one-semester course intended to meet general education requirements. Topics are chosen from the fields of physics and chemistry. (45-30)

70:122 Principles of Physics (4 s.h.) Prerequisite: 40:120, Intermediate Algebra or equivalent. An introductory level, one-term course. Major topics are measurement, matter in motion, heat, wave motion, electricity and magnetism, and modern physics. (45-30)

70:135 General Chemistry I (5 s.h.) Prerequisite: 40:060, Beginning Algebra, or equivalent. Introduction to the basic concepts and facts of chemistry. Topics include atomic structure, formation of ionic and covalent compounds, molecular structure, chemical equations including mass relations, solutions, and gases. Intended for nonscience majors. (45-60)

70:140 Introductory Chemistry (4 s.h.) Prerequisite: 40:060, Beginning Algebra, or equivalent. A first year college chemistry course which covers the concepts of chemistry. Among the topics included are systems of measurement, matter and energy, atomic theory, energy levels and atomic structure, the periodic table, ionic and covalent bonding, chemical equations, stoichiometry, acids and bases, states of matter, solutions, and redox. Laboratory experiments are performed and complement the classroom theory. Not accepted as a prerequisite for other advanced chemistry courses except 70:273, Organic Chemistry. (45-30)

80:101 General Psychology (3 s.h.) Corequisite: New students with entering ACT or COMPASS reading scores below college level will be required to co-enroll in 30:120, College Reading Skills. An introduction to the scientific study of behavior; a brief history of psychology as a science, and topics fundamental to human behavior including developmental issues, sensory abilities, cognitive performance, social and emotional factors in behavior, and abnormal behavior and therapies. (45-0)

80:110 Sociology (3 s.h.) An introductory survey course, sociology is the scientific study of society. Inquires into what holds societies together, what causes societies to change, and how social forces affect our daily lives. Topics covered include: culture and society, socialization, social research, groups, organizations, institutions, deviance, gender, race and ethnicity. An emphasis is placed on cultural diversity. (45-0)

80:111 Social Problems (3 s.h.) Prerequisite: 80:110, Sociology, is strongly recommended. Introduction to the study of contemporary social problems. The course examines how social problems are identified, explores underlying conditions and causes of social problems, and considers possible solutions and policy implications. Emphasis is on sociological and critical thinking frameworks. Topics of exploration include: mental illness, substance abuse, crime, prejudice and discrimination, prostitution, poverty, and more. (45-0)

80:112 Marriage and Family (3 s.h.) A survey of the family as a social unit in the modern American culture. A study is made regarding the creation of the American family from various cultures as well as the problems the family is subjected to such as sex relations, social roles, communication, finance, and divorce. (45-0)

80:120 Introduction to American Government (3 s.h.) A survey of the American federal system of government including a description and analysis of the constitution, the legislative, executive, and judicial branches of government, and the American political process. (45-0)

80:121 American State and Local Government (3 s.h.) A survey of state and local governments in the United States including an analysis of federal-state relations, state constitutions, state and local legislative, executive, and judicial systems, and major issues in state and local politics. (45-0)

80:190 Criminal Law I (3 s.h.) The philosophy and basis for law, the historical development of criminal law and procedure, the structure and definitions of the criminal laws. Required course for Law Enforcement curriculum. (45-0)

80:191 Criminal Law II (3 s.h.) Required course for Law Enforcement curriculum. Covering the law of arrest, search, and seizure. (45-0)

80:192 Patrol Procedures (3 s.h.) Responsibilities, techniques, and methods of police patrol. Methods of traffic law enforcement, regulation and control; and fundamentals of traffic accident investigations. (45-0)

80:230 Human Growth and Development (3 s.h.) A study of human growth: physical, mental, emotional, and social. Investigation of the child's need for love, affection, and attention; the need for reexamination of many conventional school practices in relation to the child's ego concept, sense of identity and level of aspiration; the importance of human bonds and the value of interpersonal dialogue in development; the capacity children have for the development of intelligence; and the influence of socioeconomic class and racial and ethnic discrimination on human development. (45-0)

80:290 Criminal Evidence (3 s.h.) The kinds and degrees of evidence and the rules governing the admissibility of evidence in court. Required course for Law Enforcement curriculum. (45-0)

80:291 Administration of Justice (3 s.h.) Arrest, search, and seizure; review of court systems; procedures from incident to final disposition; principles of constitutional, federal, state and civil laws as they apply to and affect law enforcement. Required course for Law Enforcement curriculum. (45-0)

80:292 Criminal Investigation (3 s.h.) Fundamentals of investigation, crime scene search and recording, collection and preservation of physical evidence, scientific aids, modus operandi, sources of information, interviews and interrogation, follow-up, and case preparation. (30-30)

89:100 A-B-C-D-E Cooperative Work Experience (1-5 s.h.) Practical training on the job under the cooperative supervision of the college and work supervisor. Designed primarily for the college transfer students to provide an experience that: (1) is directly related to their college program and career objectives; or (2) will help them test out career interest and/or discover new career possibilities. Credit is determined on the basis of one semester of credit for each 60 hours of approved employment to be completed in a term. Appropriateness of learning objectives is an essential factor in the approval process. 1-5 credits per semester, 12 credits maximum. (0-60 to 300)

Quotable Quote:

Sticks and stones may break our bones, but words will break our hearts.

-Robert Fulghum, *All I Really Need to Know I Learned in Kindergarten*

Fire Science

The NIACC Fire Science curriculum was developed with the assistance of the Mason City Fire Department as an articulated program. The curriculum meets requirements for those personsal ready employed by fire departments who wish to obtain further education for professional advancement, as well as for those who desire advanced study in fire science.

Graduates may obtain immediate employment with fire departments and perform duties as required. They may also choose to transfer to a senior institution for further study. Upon successful completion of the program, the graduate is awarded an associate in arts degree and a NIACC Fire Science Certificate.

ENTRANCE REQUIREMENTS
High school graduation or the equivalent is necessary.

REQUIRED COURSES

70:113	Fire Behavior and Investigation	4 s.h.
70:115	Fire Protection Technology	4 s.h.
70:116	Hazardous Material Technician	3 s.h.
70:117	Incident Command System	1 s.h.
70:119	Fire Instructor I	2 s.h.
89:195	EMT-B: Part I	4 s.h.
89:196	EMT-B: Part II	2 s.h.
		20 s.h.

GENERAL EDUCATION REQUIREMENTS

Communications	8 s.h.
Humanities	8 s.h.
Social Sciences	8 s.h.
Natural Sciences	8 s.h.
Distributed Requirement	8 s.h.
	40 s.h.

General Education courses must total at least 40 semester hours to meet A.A. Degree requirements. A minimum of 60 semester hours are needed for graduation.

Course Descriptions - Fire Science

70:113 Fire Behavior and Investigation (4 s.h.) This course is designed to assist in training firefighters and fire officers to properly determine the origin and cause of fire. (45-35)

70:115 Fire Protection Technology (4 s.h.) This course will familiarize the student with the different types of building construction as they relate to fire protection. Also covered will be: private fire protection systems, municipal water systems, state and local codes. (65-15)

70:116 Hazardous Material Technician (3 s.h.) This course will be oriented toward preparing emergency response team members to perform advanced control, containment, and/or confinement operations; understand hazard and risk assessment techniques; know how to identify materials using field response plan; understand the various roles within the incident command system; properly identify, select, and use specialized chemical protective clothing; and perform decontamination activities on personnel equipment. (30-30)

70:117 Incident Command System (1 s.h.) This course is designed to meet the needs of fire officers and managers with responsibilities to use, deploy, implement, and/or function within an incident command system. This addresses the need for incident management systems, an overview of the structure and expandable nature of ICS, and understanding of the command skills needed by department officers to effectively use ICS guidelines, and scenario practice. (15-0)

70:119 Fire Instructor I (2 s.h.) This course develops the participants' attitudes, knowledge, skills, and abilities to effectively implement and manage tactical operations. Develop a basic understanding of fire fighting strategies and tactics. (24-24)

89:195 EMT-B: Part I (4 s.h.) This class provides the student with the necessary knowledge and skill to perform basic emergency care and transport. It includes an introduction preparation module, airway management module, patient assessment module, and medical, behavioral, and obstetrical/gynecological emergencies module. Six hours of clinical in the hospital and nursing home is also included. (47-30)

89:196 EMT-B Part II (2 s.h.) Prerequisite 89:195, EMT-B: Part I. This course is a continuation of 89:195. It includes a trauma module, infants and children module, and operations module. Twelve hours of clinical in the hospital is also included. (20-20)

INDUSTRIAL TECHNOLOGY

Gary Forbess, Division Head
(641) 422-4202

Automotive

Automotive Service
Automotive Service Technology

Building Trades

Building Trades - Day
Building Trades - Evening

Climate Control

Climate Control Mechanics
Climate Control Technology

Electronics

Electromechanical Systems Technology

Manufacturing

General Machinist
Tool and Die Technology
General Machinist Evening

Mechanical Design Technology

Welding - Evening

Industrial Technology careers have become highly sophisticated and specialized. Continuous retraining throughout one's entire career is commonly required in many occupations. For all of these reasons, a background in math, science, technology, and communications as shown below is suggested for entrance into NIACC's Industrial Technology Programs.

TECHNOLOGY
- Drafting/CAD
- Electricity/Electronics
- Metals Processing
- Other Electives

MATH
- Applied Math OR
- Algebra, Geometry, Trigonometry

SCIENCE
- Applied Biology/Chemistry OR
- Biology and Chemistry
- Principles of Technology OR
- Physics

ENGLISH/COMMUNICATIONS
- Applied Communications
- Workplace Readiness
- Traditional English courses

NIACC has support services through the Student Learning Center for students needing to strengthen their skills in one or more of these areas.

Quotable Quote:

No one is useless in this world who lightens the burden of it for any one else.
-Charles Dickens

Automotive Service Technology

Automotive Service Technology is a 4½ semester associate in applied science (AAS) degree program. The program is ASE/NATEF Master Certified. All eight instructional areas meet industry and educational standards as identified by Automotive Service Excellence and evaluated by the National Automotive Technicians Education Foundation:

Engine Repair
Automatic Transmission/Transaxle
Manual Drive Train and Axles
Suspension and Steering
Brakes
Electrical/Electronic Systems
Heating and Air Conditioning
Engine Performance

Technicians are employed at automotive dealerships and independent service/repair facilities as general (line) technicians or as specialty technicians.

AAS DEGREE REQUIREMENTS:
Completion of required curriculum, with an average grade point of 2.00 (C).

AUTOMOTIVE PROGRAM GOAL
Prepare individuals for employment in the automotive service industry by:

- Maintaining an environment that is conducive to learning.
- Offering curriculum that reflects current industry requirements.
- Delivering classroom instruction that encourages analytical thinking.
- Providing laboratory experience that utilizes technical and problem-solving skills.
- Promoting workmanship that meets or exceeds industry standards.

Quotable Quote:

Both the educational and automotive communities should be proud of your commitment to quality automobile training programs.

- ASE President Ronald H. Weiner to NIACC regarding Automotive Program ASE/NATEF Certification

Automotive Service

Automotive Service serves as a foundation for the Automotive Service Technology AAS program. Students have the option to complete the 2½ semester program and earn a diploma, however, they are encouraged to seek an AAS degree to maximize their potential for success in the automotive service industry. Occupational areas of instruction of the diploma program are ASE/NATEF certified.

DIPLOMA OPTION REQUIREMENTS:
A diploma is granted to a person who has completed at least thirty (30) semester hours of credit. A minimum cumulative grade point average of 2.00 (C) is required. Developmental courses are not used in calculating the cumulative grade point average for graduation.

ENTRANCE ADVISING:
Due to the highly technical nature of the Automotive programs and NIACC's commitment to giving students the best possible opportunity for success, students will be scheduled for advisement sessions with counselors and program personnel. In these sessions, the student's career plans, previous background, transcripts, test scores, life experiences, and motivation will aid in designing a positive educational experience.

The NIACC Automotive program was the 2001 winner of the prestigious ASE Automotive Award of Excellence for the state of Iowa and was also the national runner-up.

Automotive Service Technology

ASSOCIATE IN APPLIED SCIENCE DEGREE

SCHEDULE

First Term

91:122	Occupational Math I	2 s.h.
91:123	Occupational Math II	2 s.h.
95:130	Communications I	3 s.h.
96:132	Electrical Concepts	3 s.h.
98:144	Intro to Automotive Technology	3 s.h.
98:145	Brake Systems	3 s.h.
98:146	Suspension and Steering	3 s.h.
		19 s.h.

Second Term

96:150	Career Physics	4 s.h.
98:147	Electrical Systems I	3 s.h.
98:148	Engine Repair	3 s.h.
98:149	Manual Drive Train & Axles	3 s.h.
98:161	Metal Processing & Metallurgy	2 s.h.
		15 s.h.

Summer Term

98:133	Heating and Air-Conditioning.	3 s.h.
98:180	Computerized Controls	2 s.h.
		5 s.h.

Third Term

15:241	Human Relations	3 s.h.
98:179	Automatic Transmissions & Transaxles	5 s.h.
98:208	Fuel Delivery Systems	3 s.h.
98:209	Electrical Systems II	5 s.h.
		16 s.h.

Fourth Term

89:150	Employment Strategies	1 s.h.
95:131	Communications II	3 s.h.
98:211	Engine Performance Testing	5 s.h.
98:212	Adv. Engine Performance	7 s.h.
		16 s.h.
	Total Hours	**71 s.h.**

DIPLOMA OPTION SCHEDULE

Completion of First Term, Second Term, and Summer Term (2½ semesters). Employment Strategies (89:150) will be offered to students who select this option.

Course Descriptions - Automotive Service and Automotive Service Technology

15:241 Human Relations (3 s.h.) The study of how people satisfy both personal growth needs and organizational goals in their careers. Although also interested in the why of human behavior, human relations goes further and looks at what can be done to anticipate problems, resolve them, or prevent them from happening. This field emphasizes knowledge that can be applied in practical ways to problems of interpersonal relations at work or in our personal life. Significant developments in recent years in the workplace have increased the importance of interpersonal skills in almost every type of work setting; these trends provide support for the necessity of acquiring competence in human relations. (45-0)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

91:122 Occupational Math I (2 s.h.) Prerequisite: Compass Pre-Algebra Score greater than or equal to 49 or a score greater than or equal to 16 on the math portion of the ACT exam or completion of Basic Math with a *C* or better or completion of Career Math I with a *C* or better. This course covers essential topics in algebra, including ratio and proportion, and basic statistics. This course is offered during the first eight weeks of the fall semester and the first eight weeks of the spring semester. (30-0)

91:123 Occupational Math II (2 s.h.) Prerequisite: Completion of 91:122, Occupational Math I, with a *C* or better. This course covers essential topics in geometry and trigonometry. This course is offered during the second eight weeks of the fall semester and the second eight weeks of the spring semester. (30-0)

91:299A-D Special Problems in Career Programs (1-4 s.h.) Course arranged with special permission of instructor and Division Chair. Credit is based on standard contact hours and assigned by Division Chair and approved by Vice President for Academic Affairs. Course may be repeated for credit.

95:130 Communications I (3 s.h.) Study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

95:131 Communications II (3 s.h.) Further study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

96:132 Electrical Concepts (3 s.h.) Electrical Concepts is an introductory survey of electricity and electronics suitable for students interested in pursing a career in such technical fields as electronics, automotive, HVAC, and other fields that require knowledge of

basic electrical/electronic concepts. Topics include safety, shop and lab practices, motors and controls, direct and alternating current, and semiconductor and digital electronics. Course work consists of problem solving, computer-assisted instruction, computer simulation, and hands-on exercises with industrial grade equipment. (30-30)

96:150 Career Physics (4 s.h.) Prerequisite/Corequisite: one semester of Career Math. An introduction to basic operating principles of gears, levers, pulleys, simple machines, and the effects of heat on solids, liquids, and gases. (45-30)

98:133 Heating & Air-Conditioning (3 s.h.) Prerequisite/Corequisite: 96:132, Electrical Concepts, or instructor's permission. Instruction in heat transfer principles applied in testing, repairing, and/or replacing heating and air-conditioning system components. Laboratory procedures for servicing and maintaining air-conditioning systems utilizing refrigerant recovery and recycling equipment. (30-60)

98:144 Introduction to Automotive Technology (3 s.h.) Prerequisite/Corequisite: strong mechanical aptitude. Instruction in fundamental shop safety, service procedures, precision measurement and engine operation, use of service manuals and service equipment. Laboratory procedures in performing new vehicle predelivery inspections, vehicle lubrication and fluid changes, and general maintenance and service of engine exhaust and cooling systems. (30-60)

98:145 Brake Systems (3 s.h.) Prerequisite/Corequisite: 98:144, Introduction to Automotive Technology. Instruction in the theory and operating principles of hydraulic and antilock (ABS) systems. Laboratory procedures for inspecting, testing diagnosing, repairing and/or replacing conventional, power, and ABS system components. (15-90)

98:146 Suspension and Steering (3 s.h.) Prerequisite/Corequisite: 98:144, Introduction to Automotive Technology. Instruction/laboratory service procedures for inspection, adjustments, alignment, repair and/or replacement of suspension and steering components. (15-90)

98:147 Electrical Systems I (3 s.h.) Prerequisite/Corequisite: 98:144, Introduction to Automotive Technology and 96:132, Electrical Concepts. Instruction in the electrical and electronic principles and testing procedures as applied to automotive circuits and microprocessors. Laboratory procedures to include the utilization of wiring schematics and test equipment for diagnosing and repairing instrumentation, electrical accessory, and lighting systems. (30-60)

98:148 Engine Repair (3 s.h.) Prerequisite/Corequisite: 98:144, Introduction to Automotive Technology. Instruction/laboratory procedures for engine repair diagnosis, removal, disassembly, inspection, overhaul and reassembly of automotive and/or light truck engines according to manufacturer's specifications. (15-90)

98:149 Manual Drive Train & Axles (3 s.h.) Prerequisite/Corequisite: 98:144, Introduction to Automotive Technology. Instruction/laboratory procedures for servicing, diagnosing, and repairing/replacing standard transmissions and clutches, transaxles, and differentials. (15-90)

98:161 Metal Processing and Metallurgy (2 s.h.) Practical applications of basic metal working tools and processes used in the field of automotive service. Covers basic SMAW, GMAW, GTAW, and oxyacetylene welding and cutting. (15-30)

98:179 Automatic Transmissions & Transaxles (5 s.h.) Prerequisite/Corequisite: 96:132, Electrical Concepts, or instructor's permission. Instruction in diagnosis, maintenance, and overhaul of major automatic transmissions and transaxles in various makes of automobiles. (45-90)

98:180 Computerized Controls (2 s.h.) Prerequisite/Corequisite: 96:132, Electrical Concepts, or instructor's permission. Instruction in theory, application, and diagnostics of automotive computers, sensors, and control devices. (15-45)

98:208 Fuel Delivery Systems (3 s.h.) Prerequisite/Corequisite: 96:132, Electrical Concepts, or instructor's permission; and strong mechanical aptitude. Instruction in the fundamentals of operation and service of complete fuel systems, including storage, delivery, and metering. (30-60)

98:209 Electrical Systems II (5 s.h.) Prerequisite/Corequisite: 98:147, Electrical Systems I, or instructor's permission. Strong mechanical aptitude. Instruction in operation, service, and troubleshooting of automotive electronic/electrical circuits and systems; to include starting, charging, and ignition systems. (45-90)

98:211 Engine Performance Testing (5 s.h.) Prerequisite/Corequisite: 98:180, Computerized Controls, or instructor's permission. Strong mechanical aptitude. Instruction in the theory, operation, and analysis of computer control distributorless ignition and emission systems, with emphasis placed on diagnosis/repair of problems using manufacturer flow charts, oscilloscopes, DVOMs, and scan tools. (45-90)

98:212 Advanced Engine Performance (7 s.h.) Prerequisite/Corequisite: 98:180, Computerized Controls, or instructor's permission. Strong mechanical aptitude. Instruction in the theory, operation, and testing of computerized engine control systems and other advanced electronic systems on the automobile, with emphasis placed on diagnosis/repair of problems using manufacturer flow charts, oscilloscopes, DVOMs, and scan tools. (75-105)

Building Trades - Day

Building Trades is a diploma program designed for individuals interested in a career in residential, commercial, or industrial building construction. Residential construction involves the building or remodeling of houses, condominiums, or apartment complexes. These structures are primarily wood frame construction. Commercial construction involves the building of single story office buildings, stores, or restaurants. These structures often use light gauge metal framing in addition to wood construction. Industrial construction includes the building of factories, hospitals, schools, or multistory office buildings. These structures may be constructed of concrete, masonry, structural steel, or a combination of materials.

Building Trades Program students learn and develop skills through a combination of classroom-structured units, manipulative lab projects, and mentored job experiences. Classroom units provide students with necessary information on safety, blueprint reading, and craftwork processes. Manipulative projects provide students the opportunity to learn craft skills at their own pace in a mock job site setting. The Building Trades Lab is a state-of-the-art facility where students learn in an individualized, competency-based setting, mastering skills by constructing manipulative projects. Mentored job experiences provide students the opportunity to apply learned skills as well as develop new skills while working under the guiding supervision of skilled contractors on job sites around North Iowa.

Incoming students are eligible to compete for scholarships through the Tom and Linda Schaefer Endowment Fund, which provides twelve $1000 scholarships each year for NIACC Building Trades students. Graduating students are eligible to compete for a $500 scholarship awarded each semester by the Contractors' Advisory Association and the North Iowa Area Builders Exchange. The Contractors' Advisory Association has also created a financial assistance agreement to enable a contractor to repay a portion of a student's educational costs after the student has completed the program requirements. In exchange for a commitment to work for a Contractors' Advisory Association member contractor after graduation, a student may receive full or partial tuition assistance from the contractor. A diploma will be awarded upon successful completion of the prescribed curriculum with a grade point average of 2.00 (*C*) or better.

Courses are structured so that students may enter the Building Trades Program at any semester--Summer, Fall, or Spring. For further information on the program, check out our website at: http://staff.niacc.cc.ia.us/~awermes/btrades/index.html

SCHEDULE

First Term (Summer)

91:151	Fundamentals of Carpentry I	3 s.h.
91:152	Fundamentals of Carpentry II	3 s.h.
89:100	Cooperative Work Experience	1 s.h.
		7 s.h.

Second Term (Fall)

89:150	Employment Strategies	1 s.h.
91:122	Occupational Math I	2 s.h.
91:123	Occupational Math II	2 s.h.
91:153	Carpentry I	4 s.h.
91:154	Carpentry I Lab	4 s.h.
91:159	Intro to the PC	1 s.h.
95:130	Communications I	3 s.h.
89:100	Cooperative Work Experience	1 s.h.
		18 s.h.

Third Term (Spring)

91:156	Carpentry II	4 s.h.
91:157	Carpentry II Lab	4 s.h.
91:198	Blueprint Reading and Estimating	3 s.h.
96:150	Career Physics	4 s.h.
89:100	Cooperative Work Experience	1 s.h.
		16 s.h.
	Total Hours	**41 s.h.**

Building Trades - Evening

The evening Building Trades Program is designed for individuals interested in completing the first term diploma carpentry course requirements of the daytime program, or for those individuals interested in gaining some basic carpentry skills. Students choosing to complete the first term carpentry diploma course requirements need to complete Fundamentals of Carpentry I and Fundamentals of Carpentry II. Students seeking to gain carpentry experience may elect to enroll in a semester length class, or they may take individual skill modules. Enrollment in individual carpentry skill modules is available through the NIACC Continuing Education office on an open entry/open exit basis to accommodate flexible scheduling.

You may work during the day and attend classes in the evening. Evening carpentry classes are designed to be hands-on, self-paced, and individualized. Classes are three hours in length and are offered two evenings per week during the semester. Students completing the evening program may begin the daytime Building Trades diploma program in the second term (fall semester) having already completed the summer term courses.

You may also enroll in Cooperative Work Experience and receive college credit for related work experience.

SCHEDULE

First Term (Fall)

91:151	Fundamentals of Carpentry I	3 s.h.
89:100	Cooperative Work Experience	1 s.h.
		4 s.h.

Second Term (Spring)

91:152	Fundamentals of Carpentry II	3 s.h.
89:100	Cooperative Work Experience	1 s.h.
		4 s.h.
	Total Hours	**8 s.h.**

Course Descriptions - Building Trades

89:100A Cooperative Work Experience (1 s.h.) Practical training on the job under the cooperative supervision of the college and work supervisor. (0-60)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

91:122 Occupational Math I (2 s.h.) Prerequisite: Compass Pre-Algebra Score greater than or equal to 49 or a score greater than or equal to 16 on the math portion of the ACT exam or completion of Basic Math with a *C* or better or completion of Career Math I with a *C* or better. This course covers essential topics in algebra, including ratio and proportion, and basic statistics. This course is offered during the first eight weeks of the fall semester and the first eight weeks of the spring semester. (30-0)

91:123 Occupational Math II (2 s.h.) Prerequisite: Completion of 91:122, Occupational Math I, with a *C* or better. This course covers essential topics in geometry and trigonometry. This course is offered during the second eight weeks of the fall semester and the second eight weeks of the spring semester. (30-0)

91:151 Fundamentals of Carpentry I (3 s.h.) (15-60)
91:152 Fundamentals of Carpentry II (3 s.h.) (15-60)
General skills instruction covers safety; basic power tools; basic power tools; job site safety; print reading; construction materials and systems; construction fasteners and processes; residential construction practices; and commercial construction practices.

91:153 Carpentry I (4 s.h.) (60-0)
91:154 Carpentry I Lab (4 s.h.) (0-210)
General skills instruction covers safety; hand tools; power tools; print reading; builders level, transit, and laser; scaffolding; rigging; arc welding, cutting, and burning. Residential skills instruction covers site work; building layout; form work; floor and sill framing; wall and ceiling framing; roof framing; stair construction; exterior walls, soffits, and cornice construction; roof coverings; window and door installation; cabinet fabrication; and running trims and hardware installations. 91:153 and 91:154 must be taken concurrently.

91:156 Carpentry II (4 s.h.) (60-0)
91:157 Carpentry II Lab (4 s.h.) (0-210)
General skills instruction covers safety; hand tools; power tools; print reading; builders level, transit, and laser; scaffolding; rigging; arc welding, cutting, and burning. Commercial skills instruction covers site work; building layout; footing, wall, stair, column, beam, and deck form constructions; wood and steel stud framing; exterior walls and canopy constructions; cabinet fabrication; wood and steel jamb, window, door, millwork, and hardware installations; office partition, and acoustical ceiling installations. 91:156 and 91:157 must be taken concurrently.

91:159 Intro to the PC (1 s.h.) Provides an introduction to the desktop PC, its parts and basic operation. Students learn how to operate the computer, work within the windows environment, and manipulate files. Course exercises include using a word processing program, sending E-mail, and exploring the Internet. (10-20)

91:198 Blueprint Reading and Estimating (3 s.h.) Residential and commercial blueprint reading and materials estimating covers understanding drawings, the language of construction. Students learn how to gather and use information from prints and drawings to estimate quantities of materials and perform construction work processes. (45-0)

95:130 Communications I (3 s.h.) Study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

96:150 Career Physics (4 s.h.) Prerequisite/Corequisite: Completion of Career Math requirement and/or permission of the instructor. An introduction to basic operating principles of gears, levers, pulleys, simple machines, and the effects of heat on solids, liquids, and gases. (45-30)

Climate Control

(Residential/Commercial Heating and Air-Conditioning)

Today's climate control technician installs, maintains, analyzes, and modifies heating and air-conditioning systems.

The Climate Control curriculum provides opportunities to develop the skills necessary for entry into the HVAC (heating, ventilation, air-conditioning) industry.

The Climate Control curriculum allows students to choose between completing a program in Climate Control Mechanics, which leads to a diploma with an emphasis in residential heating and air-conditioning or a program in Climate Control Technology, which leads to an associate in applied science degree with an emphasis in commercial heating and air-conditioning. Both programs are designed around a common group of courses. A diploma will be awarded upon successful completion of the prescribed curriculum with a grade point average of 2.00 (*C*) or better. This recognition is granted to a person who has completed at least thirty (30) semester hours of credit.

ENTRANCE ADVISING
Due to the highly technical nature of this program and NIACC's commitment to giving students the best possible opportunity for success, students will be scheduled for advisement sessions with counselors and program personnel. In these sessions, the student's career plans, previous background, transcripts, test scores, life experiences, and motivation will aid in designing a positive educational experience.

Climate Control Mechanics

The Climate Control Mechanics diploma program is designed to provide graduates with the basic knowledge and skills necessary for installing and servicing residential heating and air-conditioning systems. Theory of operation, as well as installation and service techniques, for several types of residential heating and air-conditioning systems is covered.

Completion of this program prepares graduates to enter the Climate Control Technology degree program or to enter the following occupations:

* Residential heating/air-conditioning service mechanic
* Heating/air-conditioning installer
* Heating/air-conditioning parts salesperson

SUGGESTED SCHEDULE

First Term

91:122	Occupational Math I	2 s.h.
91:123	Occupational Math II	2 s.h.
95:130	Communications I	3 s.h.
96:128	Residential Heating Systems	4 s.h.
96:129	Troubleshooting Heating Systems	3 s.h.
96:132	Electrical Concepts	3 s.h.
		17 s.h.

Second Term

89:150	Employment Strategies	1 s.h.
96:134	Air-Conditioning Principles	2 s.h.
96:138	Residential Air-Conditioning Systems	4 s.h.
96:139	Troubleshooting Air-Cond. Systems	3 s.h.
96:150	Career Physics	4 s.h.
		14 s.h.
	Total Hours	**31 s.h.**

Climate Control Technology

The Climate Control Technology Program prepares students for entry into the commercial and industrial heating, ventilation, and air-conditioning industry.

The program does this by training the student in the following areas: designing, testing, troubleshooting, and servicing residential, commercial, institutional, and industrial heating, ventilation, and air-conditioning systems.

Special emphasis is placed on energy conservation and energy management. Students in the Climate Control Technology Program supplement their first year mechanics curriculum with specialty courses in the third and fourth terms that prepare graduates to enter the following occupations:

* Commercial heating/air-conditioning service technician
* Heating/air-conditioning lab technician
* Heating/air-conditioning sales engineer
* Heating/air-conditioning parts manager
* Manufacturer's field service representative

SUGGESTED SCHEDULE

First Term

91:122	Occupational Math I	2 s.h.
91:123	Occupational Math II	2 s.h.
95:130	Communications I	3 s.h.
96:128	Residential Heating Systems	4 s.h.
96:129	Troubleshooting Heating Systems	3 s.h.
96:132	Electrical Concepts	3 s.h.
		17 s.h.

Second Term

96:134	Air-Conditioning Principles	2 s.h.
96:138	Residential Air-Conditioning Systems	4 s.h.
96:139	Troubleshooting Air-Cond. Systems	3 s.h.
96:150	Career Physics	4 s.h.
		13 s.h.

Third Term

15:134	Computer Applications OR	
15:140	Introduction to Computers and Information Systems	3 s.h.
91:124	Technical Graphics	2 s.h.
96:140	Metal Fabrication	2 s.h.
96:230	Commercial Heating Systems	5 s.h.
96:231	Advanced Control Systems	4 s.h.
		16 s.h.

Fourth Term

15:241	Human Relations	3 s.h.
89:150	Employment Strategies	1 s.h.
95:131	Communications II	3 s.h.
96:232	Air Distribution	3 s.h.
96:234	Commercial Air-Conditioning Systems	5 s.h.
96:235	Energy Management	3 s.h.
		18 s.h.
	Total Hours	**64 s.h.**

Course Descriptions - Climate Control Mechanics and Climate Control Technology

15:134 Computer Applications (3 s.h.) Emphasis on business applications of computer software. Students do business problems using word processing, electronic spreadsheet, and database management software. Students are also exposed to Windows operating systems, presentation software, and the Internet. (30-30)

15:140 Introduction to Computers and Information Systems (3 s.h.) Emphasis on computer literacy and business applications of computer software. Students do business problems using electronic spreadsheets, word processing software, database management software, and presentation software. Students also are exposed to some programming and web page development. (45-0)

15:241 Human Relations (3 s.h.) The study of how people satisfy both personal growth needs and organizational goals in their careers. Although also interested in the why of human behavior, human relations goes further and looks at what can be done to anticipate problems, resolve them, or prevent them from happening. This field emphasizes knowledge that can be applied in practical ways to problems of interpersonal relations at work or in our personal life. Significant developments in recent years in the workplace have increased the importance of interpersonal skills in almost every type of work setting; these trends provide support for the necessity of acquiring competence in human relations. (45-0)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

91:122 Occupational Math I (2 s.h.) Prerequisite: Compass Pre-Algebra Score greater than or equal to 49 or a score greater than or equal to 16 on the math portion of the ACT exam or completion of Basic Math with a *C* or better or completion of Career Math I with a *C* or better. This course covers essential topics in algebra, including ratio and proportion, and basic statistics. This course is offered during the first eight weeks of the fall semester and the first eight weeks of the spring semester. (30-0)

91:123 Occupational Math II (2 s.h.) Prerequisite: Completion of 91:122, Occupational Math I, with a *C* or better. This course covers essential topics in geometry and trigonometry. This course is offered during the second eight weeks of the fall semester and the second eight weeks of the spring semester. (30-0)

91:124 Technical Graphics (2 s.h.) Corequisite: 96:140, Metal Fabrication, and 96:230, Commercial Heating Systems. A development of the skills of interpreting machine/system drawings, including mechanical, hydraulic, pneumatic layouts. Electronic circuit drawing, terms, symbols, and standards. Use of templates with printed circuits, schematic diagrams, and sketching. (30-0)

91:299A-D Special Problems in Career Programs (1-4 s.h.) Course arranged with special permission of instructor and Division Chair. Credit is based on standard contact hours and assigned by Division Chair and approved by Vice President for Academic Affairs. Course may be repeated for credit.

95:130 Communications I (3 s.h.) Study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

95:131 Communications II (3 s.h.) Further study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

96:128 Residential Heating Systems (4 s.h.) Corequisite: 96:132, Electrical Concepts, or instructor's permission. The purpose of this course is to introduce the student to the various types of residential heating systems. Areas and concepts covered include combustion theory, basic air distribution, furnace construction, filters, humidifiers, installation techniques, and maintenance procedures. (30-105)

96:129 Troubleshooting Heating Systems (3 s.h.) Prerequisite: 96:132, Electrical Concepts, or instructor's permission. The purpose of this course is to introduce the student to the fundamentals of troubleshooting by utilizing a practical and systematic approach to locate and repair heating system malfunctions. The student will also have the opportunity to study, in detail, the motors and controls used in today's heating systems. Topics to be covered include basic electric circuits, electrical test meters, motors and controls, diagnosis of electrical and mechanical malfunctions, and special emphasis on writing diagrams. (15-90)

96:132 Electrical Concepts (3 s.h.) Electrical Concepts is an introductory survey of electricity and electronics suitable for students interested in pursing a career in such technical fields as electronics, automotive, HVAC, and other fields that require knowledge of basic electrical/electronic concepts. Topics include safety, shop and lab practices, motors and controls, direct and alternating current, and semiconductor and digital electronics. Course work consists of problem

solving, computer-assisted instruction, computer simulation, and hands-on exercises with industrial grade equipment. (30-30)

96:134 Air-Conditioning Principles (2 s.h.) A study of the theory of air-conditioning. Includes psychometrics, heat gain/loss problems, and equipment sizing. (15-45)

96:138 Residential Air-Conditioning Systems (4 s.h.) Prerequisite: 96:132, Electrical Concepts, or instructor's permission. The purpose of this course is to introduce the student to the various types of residential air-conditioning and heat pump systems. Areas and concepts covered include refrigeration, air-conditioning, heat pump theory, heat pump construction, installation techniques, and maintenance procedures. (30-105)

96:139 Troubleshooting Air-Conditioning Systems (3 s.h.) Prerequisite: 96:132, Electrical Concepts, or instructor's permission. The purpose of this course is to introduce the student to the fundamentals of troubleshooting by utilizing a practical and systematic approach to locate and repair air-conditioning and heat pump system malfunctions. The student will also have the opportunity to study, in detail, the motors and controls used in today's air-conditioning and heat pump systems. Topics to be covered include basic electric circuits, electrical test meters, motors and controls, diagnosis of electrical and mechanical malfunctions, and special emphasis on wiring diagrams. (15-90)

96:140 Metal Fabrication (2 s.h.) Corequisite: 91:124, Tech Graphics, and 96:230, Commercial Heating Systems. Use of selected sheet metal tools, layout, cutting, forming, and assembly of sheet metal as well as soldering and brazing processes. (15-30)

96:150 Career Physics (4 s.h.) Prerequisite/Corequisite: one semester of Career Math. An introduction to basic operating principles of gears, levers, pulleys, simple machines, and the effects of heat on solids, liquids, and gases. (45-30)

96:230 Commercial Heating Systems (5 s.h.) Prerequisite: 96:128, Residential Heating Systems, or instructor's permission. This course covers large heating systems used in commercial, institutional, and industrial applications. Types of equipment include hot water and low- pressure steam boilers and roof top heating units. (30-135)

96:231 Advanced Control Systems (4 s.h.) Prerequisite: 96:129, Troubleshooting Heating Systems; and 96:139, Troubleshooting Air- Conditioning Systems, or instructor's permission. Major emphasis is on four basic types of control systems: pneumatic, electronic, electromechanical, and digital as applied to large heating and air-conditioning applications. (30-120)

96:232 Air Distribution (3 s.h.) Prerequisite: 96:134, Air-Conditioning Principles, or instructor's permission. A study of the construction and design of duct work and related duct fittings. Includes correct layout and sizing of ducts, return and supply grills, and use of air flow measuring instruments. (30-60)

96:234 Commercial Air-Conditioning Systems (5 s.h.) Prerequisite: 96:138, Residential Air-Conditioning Systems, or instructor's permission. This course covers large cooling systems used in commercial, institutional, and industrial applications. Types of equipment include water chillers, multistage reciprocating units, and an introduction to absorption systems. (30-135)

96:235 Energy Management (3 s.h.) Prerequisite/Corequisite: 96:231, Advanced Control Systems, or instructor's permission. This course is designed to examine the consumption of energy in commercial and industrial buildings and how energy usage may be reduced. Topics include building design, load management, improving equipment efficiency, improved lighting systems, utility rate structures, and energy management control systems. (30-60)

Quotable Quote:

If opportunity does n't knock, build a door.
-Milton Berle

Electromechanical Systems Technology

Electromechanical Systems Technology is an associate in applied science degree program designed to prepare the graduate for immediate employment as electronic, electrical, and mechanical maintenance personnel in manufacturing settings.

CERTIFICATIONS

Students may earn recognition as a Certified Electronic Technician Associate Level (CETa) by the Electronic Technicians Association (ETA). To earn such recognition, the student must pass the National Certified Electronic Technician exam which is required of all program completers.

ENTRANCE ADVISING

Due to the highly technical nature of the Electromechanical Systems Technology program and NIACC's commitment to giving students the best possible opportunity for success, students will be scheduled for advisement with counselors and program personnel. During these sessions, the student's career plans, previous educational background, transcripts, test scores, life experiences, and motivation will aid in designing a positive educational experience.

ENTRANCE REQUIREMENTS

Students must either have completed Basic Math or higher OR score 16 or higher on ACT math OR have a COMPASS score at the Beginning Algebra level.

MULTIPLE ENTRY/MULTIPLE EXIT COURSE ENROLLMENT RULES

Ten courses in the Electromechanical Systems Technology program are offered in an instructor-supervised/student-paced format. The courses are divided into five levels depending on their prerequisites. Students start with Level 1 courses and proceed to higher levels after completing their current level. Courses that span across more than one level may be taken in any of those levels. Although a suggested schedule appears on this page, the chart on the following page more clearly illustrates the sequencing of the courses.

SPECIAL PROGRAM REQUIREMENTS

As part of the requirements for graduation, students are required to take the Certified Electronics Technician (CET) exam during their final semester. The cost of the exam ($50) is the student's responsibility.

COLLEGE TRANSFER OPTION

Through an articulation agreement with the University of Northern Iowa, graduates of the Electromechanical Systems Technology program may continue their education by transferring to baccalaureate programs in such industrial technology fields as manufacturing, electromechanical systems, engineering technology, or supervision and management. Help of a NIACC counselor or program instructor is advised.

Graduates of the Electromechanical Systems Technology program may find work in the following occupations:

Electronics Technician
Industrial Process Control Technician
Industrial Maintenance Technician
Instrumentation Technician
Electromechanical Technician
Control Systems Technician
Computer Automated Process Control Technician

SUGGESTED SCHEDULE

Term One

15:241	Human Relations OR	3 s.h.
	80:101 General Psychology (3 s.h.)	
91:122	Occupational Math I	2 s.h.
91:123	Occupational Math II OR	2 s.h.
	40:151 College Algebra & Trig I (4 s.h.)	
91:104	Intro to Tech Computing & CAD	3 s.h.
91:175	DC/AC Theory	3 s.h.
92:118	Fluid Power	3 s.h.
95:130	Communications I OR	3 s.h.
	30:101 Comm. Skills I (3 s.h.)	
		19 s.h.

Term Two

91:105	Industrial Control Systems	3 s.h.
91:179	Analog Devices and Circuits	4 s.h.
91:214	Digital Electronics	3 s.h.
95:131	Communications II OR	3 s.h.
	30:102 Comm. Skills II (3 s.h.)	
	Math Elective	4 s.h.
		17 s.h.

Term Three

91:110	Electromechanical Internship	2 s.h.
		2 s.h.

Term Four

91:204	Advanced Industrial Control Systems	7 s.h.
91:210	Technical Physics I OR	4 s.h.
	70:280 General Physics (4 s.h.) OR	
	70:122 Principles of Physics (4 s.h.) OR	
	70:140 Introductory Chemistry (4 s.h.)	
96:156	Maintenance Shop Operations	3 s.h.
96:157	Servos and Drives	2 s.h.
Open Elective		3 s.h.
		19 s.h.

Term Five

89:150	Employment Strategies	1 s.h.
91:206	Computer Automated Manufacturing	3 s.h.
91:207	Industrial Instrumentation	4 s.h.
91:211	Technical Physics II OR	4 s.h.
	70:281 General Physics II (4 s.h.) OR	
	70:122 Principles of Physics (4 s.h.) OR	
	70:140 Introductory Chemistry (4 s.h.)	
96:155	Facilities Maintenance	5 s.h.
		17 s.h.
	Total Hours	**74 s.h.**

<table>
<tr><th colspan="8">Course Sequencing by Course Level</th></tr>
<tr><th>Level</th><td colspan="7">(91:122/91:123 and 91:104 may be taken concurrently with 91:175 and/or 92:118)</td></tr>
<tr><td>1</td><td colspan="4">91:122, 91:123 Occupational Math I & II*</td><td colspan="2">91:104 Intro to Tech Computing/ CAD</td><td rowspan="4">96:156* Maintenance Shop Operations</td></tr>
<tr><td>2</td><td colspan="3">91:175 DC/AC Theory</td><td rowspan="2">92:118 Fluid Power</td><td colspan="2" rowspan="3"></td></tr>
<tr><td>3</td><td>91:179 AD&C</td><td>91:214 Digital</td><td>91:105 ICS</td></tr>
<tr><td>4</td><td rowspan="2"></td><td>91:204 AICS</td><td>96:157 Servos</td><td rowspan="2">91:110* Internship</td></tr>
<tr><td>5</td><td>91:207 Ind Instr</td><td>91:206* CAM</td><td>96:155 Facilities Maintenance</td><td></td></tr>
</table>

*These courses are not offered as Multiple Entry/Multiple Exit Courses.

The later in the semester that the student enrolls, the fewer technical core course credits he/she will be allowed to register in.

Course Descriptions - Electromechanical Systems Technology

15:241 Human Relations (3 s.h.) The study of how people satisfy both personal growth needs and organizational goals in their careers. Although also interested in the why of human behavior, human relations goes further and looks at what can be done to anticipate problems, resolve them, or prevent them from happening. This field emphasizes knowledge that can be applied in practical ways to problems of interpersonal relations at work or in our personal life. Significant developments in recent years in the workplace have increased the importance of interpersonal skills in almost every type of work setting; these trends provide support for the necessity of acquiring competence in human relations. (45-0)

30:101 Communication Skills I (4 s.h.) Improvement of skills in reading, writing, speaking, and listening, with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

30:101C Communication Skills I (3 s.h.) Improvement of skills in reading and writing with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing to receive a grade of "C" or higher. (45-0)

30:102 Communication Skills II (4 s.h.) Prerequisite: 30:101, Communication Skills I. Students must have earned a "C" or higher grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101 with an emphasis on argumentative and persuasive writing and speaking, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

30:102C Communication Skills II (3 s.h.) Prerequisite: 30:101C, Communication Skills I. Students must have earned a "C" or higher grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101C with an emphasis on argumentative and persuasive writing, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos. Students must meet minimum competency requirements in writing to receive a grade of "C" or higher. (45-0)

40:151 College Algebra & Trigonometry I (4 s.h.) Prerequisite: Two years of high school algebra with a "C" or higher or 40:120, Intermediate Algebra, with a "C" or higher. This course is intended for students majoring in business, social science, biological sciences, liberal arts, and those mathematics students with insufficient background to begin the study of calculus and feel they can not keep up the pace of Precalculus. Topics include review of algebraic operations, field properties, introduction to plane analytic geometry, including points and lines, functions of various types such as polynomials and their graphs, operations with complex numbers, and circular functions. (60-0)

70:122 Principles of Physics (4 s.h.) Prerequisite: 40:120, Intermediate Algebra or equivalent. An introductory level, one-term course. Major topics are measurement, matter in motion, heat, wave motion, electricity and magnetism, and modern physics. (45-30)

70:140 Introductory Chemistry (4 s.h.) Prerequisite: 40:060, Beginning Algebra, or equivalent. A first year college chemistry course which covers the concepts of chemistry. Among the topics included are systems of measurement, matter and energy, atomic theory, energy levels and atomic structure, the periodic table, ionic and covalent bonding, chemical equations, stoichiometry, acids and bases, states of matter, solutions, and redox. Lab experiments are performed and complement the classroom theory. Not accepted as a prerequisite for other advanced chemistry courses except 70:273, Organic Chemistry. (45-30)

70:280 General Physics I (4 s.h.) Prerequisite: 40:151, College Algebra & Trigonometry, or equivalent. Mechanics, simple harmonic motion, waves, and fluids. Designed for students in pharmacy, medicine, dentistry, and professional fields other than engineering. Liberal arts students with an interest in science may elect this course. (45-30)

70:281 General Physics II (4 s.h.) Prerequisite: Math, 40:151, College Algebra & Trigonometry, or equivalent, and 70:280, General Physics I, or equivalent algebra-based first semester physics course as approved by the instructor. A continuation of 70:280, thermodynamics, electricity and magnetism, DC and AC circuits, optics, and atomic physics. (45-30)

80:101 General Psychology (3 s.h.) Corequisite: New students with entering ACT or COMPASS reading scores below college level will be required to co-enroll in 30:120, College Reading Skills. An introduction to the scientific study of behavior; a brief history of psychology as a science, and topics fundamental to human behavior including developmental issues, sensory abilities, cognitive performance, social and emotional factors in behavior, and abnormal behavior and therapies. (45-0)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

91:104 Introduction to Technical Computing and Computer-Aided Drafting (3 s.h.) Prerequisite/Corequisite: Ability to key-enter the equivalent of 25 words/minute at a computer keyboard. Introduction to Technical Computing and CAD is designed to familiarize the student with microcomputer basics relating to occupations in the industrial/technical area. Topics include computer hardware, operating systems, commands and tasks, disk organization and access, word processing, spreadsheets, and two-dimensional computer-aided drafting (CAD). Multiple entry/multiple exit enrollment. See Electromechanical Systems Technology Multiple Entry/Multiple Exit Course Enrollment rules on page 107. (15-60)

91:105 Industrial Control Systems (3 s.h.) Prerequisite: 91:175, DC/AC Theory. Introduction to industrial electrical motor and control circuitry. Emphasis placed on AC single- and three-phase circuit and transformer theory and industrial applications. Applications include various types of control elements. Study of the National Electrical Code as it pertains to manufacturing/industrial environment. Fundamental skills in electrical wiring and raceway techniques are learned through lab and/or project exercises. Multiple entry/multiple exit enrollment. See Electromechanical Systems Technology Multiple Entry/Multiple Exit Course Enrollment rules on page 107. (15-69)

91:110 Electromechanical Internship (2 s.h.) Prerequisite: sophomore status in the Electromechanical Systems Technology Program and permission of internship coordinator. Supervised work experience in a business or industry. Work must be related to the major field of study; i.e., electricity/electronics, industrial maintenance, installation or service of control systems, etc. (0-160)

91:175 DC/AC Theory (3 s.h.) Prerequisite/Corequisite: 91:122, Occupational Math I, and 91:123, Occupational Math II. Study of the nature of electricity involving both direct and alternating current. DC circuit analysis utilizing more advanced techniques such as: superposition, Thevinin's and Norton's theorems. AC circuit analysis involving RL, RC, and RLC circuits, inductive and capacitive reactances, resonance, and transformer fundamentals. Computer circuit simulation of both DC and AC circuits is stressed along with an application of electronic test equipment; oscilloscopes, meters, and power supplies. Multiple entry/multiple exit enrollment. See Electromechanical Systems Technology Multiple Entry/Multiple Exit Course Enrollment rules on page 107. (15-60)

91:179 Analog Devices and Circuits (4 s.h.) Prerequisite: 91:175, DC/AC Theory. Study of diodes, bipolar transistors and field effect transistors (JFETs and MOSFETs) as they are used in both AC and DC electronic circuits. Applications such as power supplies, switching circuits and amplifier circuits are covered. Advanced topics in electronic devices including operational amplifiers (op amps), active filters, thyristors, and voltage regulation are covered. Computer simulation of the devices under study is covered. Both circuit analysis and measurement techniques using meters and oscilloscopes are stressed. Multiple entry/multiple exit enrollment. See Electromechanical Systems Technology Multiple Entry/Multiple Exit Course Enrollment rules on page 107. (15-91)

91:204 Advanced Industrial Control Systems (7 s.h.) Prerequisite: Level 3 Electromechanical Systems Technology Core. Introduction to programmable logic controllers (PLC's) using the Allen Bradley SLC500 and RSLogix 500 programming software, elementary ladder logic and external contact instructions, counters timers, program development techniques, and troubleshooting. Advanced topics in programmable logic controllers including program control instructions, math operations, analog I/O, sequencers, and data manipulation. Field wiring of PLCs to control devices using standardized practices. Motor control circuitry utilizing advanced control techniques, application of variable frequency drives for AC motors. DeviceNET programming and integration using RSNetworx. PanelVIEW programming and integration using the Allen Bradlley Pane 500. Projects involving practical field devices and program development. Multiple Entry/Multiple Exit enrollment. See Electromechanical Systems Technology Multiple Entry/Multiple Exit Course Enrollment Rules on page 107. (30-164)

91:206 Computer Automated Manufacturing (3 s.h.) Prerequisite/Corequisite: 92:118, Fluid Power; 91:204, Advanced Control Systems; and, 92:227, Automated Manufacturing Processes. Introduction to robotic fundamentals including the integration of robots, computers, and programmable logic controllers in the operation of a flexible manufacturing line (FML). Group dynamics, project structure, and troubleshooting techniques. (15-65)

91:207 Industrial Instrumentation (4 s.h.) Prerequisite/Corequisite: Level 4 Electromechanical Systems Technology Core. Modern instrumentation techniques as they apply to the manufacturing environment. Industrial sensors, transducers, and related components. Instrumentation programming using RS Logix500, DeviceNet, and Panel Builder. Use of the PLC and personal computer for instrumentation and control purposes. Industrial process control theory, telemetry, and data communication. Multiple Entry/Multiple Exit enrollment. See Electromechanical Systems Technology Multiple Entry/Multiple Exit Course Enrollment Rules on page 107. (15-90)

91:210 Technical Physics I (4 s.h.) Prerequisite/Corequisite: 91:107, Technical Mathematics I; 40:151, College Algebra and Trigonometry I. This course presents traditional fields of physics such as measurement, mechanics, properties of matter, simple harmonic motion, and waves. Emphasis is placed on industrial and technical applications of physics. (45-30)

91:211 Technical Physics II (4 s.h.) Prerequisite/Corequisite: 91:107, Technical Mathematics I; 40:151, College Algebra and Trigonometry I, or an equivalent course in algebra and trigonometry. This course presents traditional fields of physics such as thermodynamics, electricity and magnetism, DC and AC circuits, and light. Emphasis is placed on industrial and technical applications of physics. (45-30)

91:214 Digital Electronics (3 s.h.) Prerequisite/Corequisite: 91:175, DC/AC Theory. Study of number systems related to digital circuits, Boolean Algebra/Karnaugh Maps. Combinational logic including AND, OR, NAND, NOR, NOT, and XOR. Combinational circuits decoders. Basic sequential elements including SR, D, JK, and Master-Slave flipflops. Sequential circuits including registers and counters. Memory circuits and applications. Analog to digital (A/D) and digital to analog (D/A) conversion, and elementary interfacing. Design, analysis, and computer simulation. Multiple entry/multiple exit enrollment. See Electromechanical Systems Technology Multiple Entry/Multiple Exit Course Enrollment rules on page 107. (15-63)

92:118 Fluid Power (3 s.h.) Prerequisite/Corequisite: 91:122, Occupational Math I, and 91:123, Occupational Math II. Fluid Power gives students a solid foundation in, and hands-on experience with, hydraulic and pneumatic components and circuits; the transmission of force through fluids; conversion of force to pressure; the control of power; and systematic methods of troubleshooting and testing hydraulic and pneumatic systems. Multiple Entry/Multiple Exit enrollment. Please see Electromechanical Systems Technology Multiple Entry/Multiple Exit Course Enrollment rules on page 107. (15-65)

95:130 Communications I (3 s.h.) Study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

95:131 Communications II (3 s.h.) Further study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

96:155 Facilities Maintenance (5 s.h.) Prerequisite: 91:105, Motors, Controls, and Industrial Wiring. Overview of topics specific to maintenance of facilities. Topics include project estimating issues including installation, cost, and time. Practice reading building schematics and blueprints. Fundamentals of HVAC with lab exercises. Construction issues including sprinkler, electrical, and plumbing systems. General overview of facilities systems. (30-90)

96:156 Maintenance Shop Operations (3 s.h.) Introduction to shop equipment generally found in the industrial maintenance environment. Instruction and practice with metal saws, drills, grinders, elementary welding and cutting, thread repair, anchors and fasteners. Study of mechanical prints to identify parts in assembly and repair situations. Use of catalogs to find and order repair parts, study of bearings and seals, applications, and failure analysis. (15-61)

96:157 Servos and Drives (2 s.h.) Prerequisite: 91:105, Industrial Control Systems. Study of direct and alternating current variable speed drives, closed loop control systems, and servo systems. Hands-on exercises provide experience with typical components and interconnections needed to implement various control systems. Concepts of system stability, frequency response, feedback, damping, position and speed control, and many others are covered. Multiple Entry/Multiple Exit enrollment. See Electromechanical Systems Technology Multiple Entry/Multiple Exit Course Enrollment Rules on page 107. (15-31)

General Machinist

General Machinist is a two-semester diploma program designed to provide in-depth study and considerable hands-on skills in the machine processing of a variety of metals. This one-year program provides the foundation for the associate in applied science program, Tool and Die Technology.

Students become proficient in the operation of manual mills, lathes, grinders, drills, and saws as they complete increasingly complex projects while holding tight tolerances. Various pieces of precision measuring equipment (optical comparator, coordinate measuring machine, etc.) are used to check quality. Additional work in blueprint reading, heat-treating, and computer numerical controlled (CNC) machining is required to complete the General Machinist Program.

Upon satisfactory completion of this program, students are awarded a NIACC diploma. Program graduates have the option to continue into the A.A.S. Tool and Die Technology Program or immediately begin employment in an area machine shop or manufacturing facility producing a wide variety of machined parts.

ENTRANCE ADVISING

Due to the highly technical nature of this program and NIACC's commitment to giving students the best possible opportunity for success, students are scheduled for advisement sessions with counselors and program personnel. In these sessions, the student's career plans, previous background, transcripts, test scores, life experiences, and motivation aid in designing a positive educational experience.

SUGGESTED SCHEDULE

First Term

91:122	Occupational Math I	2 s.h.
91:123	Occupational Math II	2 s.h.
95:130	Communications I	3 s.h.
96:162	Computer Orientation	1 s.h.
96:163	Blueprint Reading I	1 s.h.
96:165	Machine Tool Practices I	9 s.h.
		18 s.h.

Second Term

96:150	Career Physics	4 s.h.
96:164	Blueprint Reading II	1 s.h.
96:166	Machine Tool Practices II	7 s.h.
96:167	Fundamentals of CNC	3 s.h.
		15 s.h.
	Total Hours	**33 s.h.**

Tool and Die Technology

Tool and Die Technology is a five-semester degree program which is a continuation of the General Machinist diploma program. The Tool and Die Technology Program builds upon the previous studies with an in-depth study of high-precision industrial dies and die components, progressive dies, and plastics industry molds. A portion of the program is devoted to producing computer-aided drawings (CAD) of molds and dies, and then using computer-aided manufacturing (CAM) software to generate CNC machine language. Students operate computer numerical controlled (CNC) machine tools to produce many of their second year projects.

Upon satisfactory completion of this program, students are awarded an associate in applied science degree. Program graduates are prepared to work in the "tool room" of area manufacturers or to work for a specialty tool and die shop producing dies and molds for a large variety of production machines in our area.

SUGGESTED SCHEDULE

First Term

91:122	Occupational Math I	2 s.h.
91:123	Occupational Math II	2 s.h.
95:130	Communications I	3 s.h.
96:162	Computer Orientation	1 s.h.
96:163	Blueprint Reading I	1 s.h.
96:165	Machine Tool Practices I	9 s.h.
		18 s.h.

Second Term

96:150	Career Physics	4 s.h.
96:164	Blueprint Reading II	1 s.h.
96:166	Machine Tool Practices II	7 s.h.
96:167	Fundamentals of CNC	3 s.h.
		15 s.h.

Third Term (Summer)

96:170	Statistical Process Control (SPC)	1 s.h.
96:171	Tool and Die Making I	5 s.h.
96:172	Fundamentals of EDM	2 s.h.
96:173	3-D Modeling	2 s.h.
96:270	Computer-Aided Drafting (CAD)	2 s.h.
		12 s.h.

Fourth Term

15:241	Human Relations	3 s.h.
89:150	Employment Strategies	1 s.h.
96:169	Welding	2 s.h.
96:271	Tool and Die Making II	8 s.h.
96:272	Computer-Aided Manufacturing (CAM)	3 s.h.
		17 s.h.

Fifth Term

95:131	Communications II	3 s.h.
96:273	Plastics Materials and Methods	1 s.h.
96:274	Mold Making I	9 s.h.
96:275	Advanced CNC & EDM	2 s.h.
		15 s.h.
	Total Hours	**77 s.h.**

Course Descriptions - General Machinist and Tool and Die

15:241 Human Relations (3 s.h.) The study of how people satisfy both personal growth needs and organizational goals in their careers. Although also interested in the why of human behavior, human relations goes further and looks at what can be done to anticipate problems, resolve them, or prevent them from happening. This field emphasizes knowledge that can be applied in practical ways to problems of interpersonal relations at work or in our personal life. Significant developments in recent years in the workplace have increased the importance of interpersonal skills in almost every type of work setting; these trends provide support for the necessity of acquiring competence in human relations. (45-0)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

91:122 Occupational Math I (2 s.h.) Prerequisite: Compass Pre-Algebra Score greater than or equal to 49 or a score greater than or equal to 16 on the math portion of the ACT exam or completion of Basic Math with a *C* or better or completion of Career Math I with a *C* or better. This course covers essential topics in algebra, including ratio and proportion, and basic statistics. This course is offered during the first eight weeks of the fall semester and the first eight weeks of the spring semester. (30-0)

91:123 Occupational Math II (2 s.h.) Prerequisite: Completion of 91:122, Occupational Math I, with a *C* or better. This course covers essential topics in geometry and trigonometry. This course is offered during the second eight weeks of the fall semester and the second eight weeks of the spring semester. (30-0)

95:130 Communications I (3 s.h.) Study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

95:131 Communications II (3 s.h.) Further study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

96:150 Career Physics (4 s.h.) Prerequisite/Corequisite: one semester of Career Math. An introduction to basic operating principles of gears, levers, pulleys, simple machines, and the effects of heat on solids, liquids, and gases. (45-30)

96:162 Computer Orientation (1 s.h.) Introduction to basic computer hardware and software functions. Emphasis on using the computer as a tool to create personal and business documents. Introductory windows, word processing, spreadsheet, presentation, and Internet units give students an opportunity to view software capabilities and use some of the features, (15-15)

96:163 Blueprint Reading I (1 s.h.) An introduction to the importance of prints in industry. Covers isometric drawings, orthographic projection, auxiliary views, detail and assembly drawing, dimensions and tolerances, and sectional views. Integrates the alphabet of lines and principles of sketching. Other information covered includes title blocks, drawing change systems, drawing notes, and material lists. (0-30)

96:164 Blueprint Reading II (1 s.h.) Prerequisite/Corequisite: 96:163, Blueprint Reading I. Continues Blueprint Reading I with emphasis on geometric dimensioning and tolerancing and the interpretation of more advanced prints used in the construction of tool and die and mold building. (0-30)

96:165 Machine Tool Practices I (9 s.h.) Prerequisite/Corequisite: 91:122, Occupational Math I; and 96:163, Blueprint Reading I. Covers theory and lab use of basic measuring and machining tools, layout inspection tools, as well as bench work. Safety is taught and enforced as it applies to each machine process. Proper terminology of the machinist trade is emphasized as well as following blueprints and holding tolerances through the use of a variety of machining processes to produce a product. (60-225)

96:166 Machine Tool Practices II (7 s.h.) Prerequisite/Corequisite: 96:165, Machine Tool Practices I; 91:123, Occupational Math II; and 96:164, Blueprint Reading II. Continues Machine Tool Practices I. Covers more advanced principles in setup and operation of mills, lathes, and grinders, with an introduction to carbide tooling along with a continued emphasis on shop safety, communication, and cooperation. Stresses the interrelationship of manufactured mating parts. (45-195)

96:167 Fundamentals of CNC (3 s.h.) Prerequisite/Corequisite: 96:166, Machine Tool Practices II. Students must obtain a grade of "C" or better in 96:165, Machine Tool Practices I. Covers computer numerical control (CNC) as it relates to milling machines, turning lathes, microcomputers, and related software. Emphasis on input language, codes, machine set-up and operation, inspection of parts, and communication of peripherals. (30-30)

96:169 Welding (2 s.h.) This is a basic arc/oxy-fuel welding and cutting course. The students learn introductory skills in SMAW, GTAW, and GMAW welding, oxy-acetylene welding, and oxy-fuel cutting. The students learn and understand safety procedures relating to subjects and shop safety in general. (15-30)

96:170 Statistical Process Control (SPC) (1 s.h.) Covers the current transformation methods of industry and business toward a complete quality control system. Management theory on quality, productivity, and controlled charting techniques are included. (15-0)

96:171 Tool and Die Making I (5 s.h.) Prerequisite/Corequisite: Students must obtain a grade of "C" or better in 96:167, Fundamentals of CNC, and 96:166, Machine Tool Practices II. This course is an introduction to the design of industrial tools and machining char-

acteristics of tool components. The student is introduced to additional machining skills that will be encountered in typical machine shops in the building of molds, dies, jigs, fixtures, and precision machine parts. (30-160)

96:172 Fundamentals of EDM (2 s.h.) Prerequisite/Corequisite: 96:171, Tool and Die Making I. Students must obtain a grade of "C" or better in 96:167, Fundamentals of CNC. The students are introduced to the electrical discharge machines, both wire and ram-type. Emphasis on how these tools are used in the manufacturing of punch and die components and injection mold cores and cavities. (15-45)

96:173 3-D Modeling (2 s.h.) Prerequisite: 96:270, Computer-Aided Drafting. Students are introduced to solid modeling as an essential tool, utilizing and enhancing designing skills. This is accomplished through the generation of 3-D drawings created in the CAD environment. Operating systems commands, cursor manipulation, file storage and retrieval, entity manipulation, such as rotation, mirroring, editing, dimensioning, sections, sheet metal parts, and assemblies capabilities will be covered. (15-30)

96:192 Intro to Geometric Dimensioning and Tolerancing (2 s.h.) Begins with an introduction to the international engineering language, Geometric Dimensioning Tolerancing (GD&T). The students are taught to recognize the symbols and to understand the terms and rules used in GD&T, according to the American Society of Mechanical Engineers (ASME)Y 14.5M 1994 standards. The students then learn how to apply these symbols to the features of a part and provide a very concise and clear definition of design intent. (30-0)

96:270 Computer-Aided Drafting (CAD) (2 s.h.) Prerequisite/Corequisite: 96:168, Fundamentals of Drafting. Students are introduced to computer-aided drafting and design as an essential tool utilizing and enhancing the student's existing drafting skills. This is accomplished through the generation of two- and three-dimensional or thographic drawings as well as pictorial techniques in the CAD environment. Operating systems commands, cursor manipulation, direct display interaction, geometry creation and manipulation, file storage and retrieval, entity manipulation such as rotation and mirroring, and the use of printers are just a few of the hardware and software capabilities to be covered. (15-30)

96:271 Tool and Die Making II (8 s.h.) Prerequisite/Corequisite: 96:171, Tool and Die Making I. This course is a continuation of Tool and Die Making I with instruction and practice in building a progressive or compound die. Emphasis is placed on the tool building procedures learned in Tool and Die I and toward fabricating dies. Instruction is given on the considerations involved in developing die components, such as calculation of die clearances, bend allowance, cutting forces, press tonnage requirements, and practice in building a complete functional die. (45-225)

96:272 Computer-Aided Manufacturing (CAM) (3 s.h.) Prerequisite/Corequisite: 96:171, Tool & Die Making I, and 96:172, Fundamentals of EDM. Students must obtain a grade of "C" or better in 96:167, Fundamentals of CNC. This program provides an introduction to (Process Modeling) utilizing the CNC graphics programming system. Using engineering drawings, students program various parts for CNC mills, CNC lathes, and CNC EDM. Related topics include job planning, tool selection, construction of a process model, tool path verification, simulation, quality control, CAD, CAM data transfer, and CNC code generation. (15-60)

96:273 Plastic Materials and Methods (1 s.h.) This is a survey course designed to introduce the student to the field of plastics. This overview includes thermoplastics and thermoset materials along with the major processing methods being utilized by industry today. (15-0)

96:274 Mold Making I (9 s.h.) Prerequisite/Corequisite: 96:271, Tool and Die Making II; 96:273, Plastics Materials and Methods. The student is introduced to the field of mold making for plastic injection molds, blow molds, compression and transfer molds, zinc and aluminum die casting molds. Focus is placed on mold theory, mold repair, identification and correction of mold problems, standardization of mold components, mold blueprint reading, and the machine shop skills necessary for mold making, as related to thermoplastic injection molds. In addition the student develops necessary basic skills for gating, venting, heating, cooling, stoning and polishing as well as other hands-on experiences necessary to manufacture mold plates, cores, cavities, and ejection systems. The student builds a prototype injection mold. (45-285)

96:275 Advanced CNC & EDM (2 s.h.) Prerequisite/Corequisite: 96:274, Mold Making I. A continuation of CNC and EDM fundamentals as well as mold making with additional instruction and practice in the use of CAD, wire, and ram electrical discharge machines in the construction of die and mold components. (15-45)

General Machinist Evening

General Machinist is a two-semester diploma program designed to provide in-depth study and considerable hands-on skills in the machine processing of a variety of metals. This one-year program provides the foundation for the associate in applied science program, Tool and Die Technology.

Students become proficient in the operation of manual mills, lathes, grinders, drills, and saws as they complete increasingly complex projects while holding tight tolerances. Various pieces of precision measuring equipment (optical comparator, coordinate measuring machine, etc.) are used to check quality. Additional work in blueprint reading, heat-treating, and computer numerical controlled (CNC) machining is required to complete the General Machinist Program.

Upon satisfactory completion of this program, students are awarded a NIACC diploma. Program graduates have the option to continue into the A.A.S. Tool and Die Technology Program or immediately begin employment in an area machine shop or manufacturing facility producing a wide variety of machined parts.

ENTRANCE ADVISING

Due to the highly technical nature of this program and NIACC's commitment to giving students the best possible opportunity for success, students are scheduled for advisement sessions with counselors and program personnel. In these sessions, the student's career plans, previous background, transcripts, test scores, life experiences, and motivation aid in designing a positive educational experience.

SUGGESTED SCHEDULE

91:122	Occupational Math I	2 s.h.
91:123	Occupational Math II	2 s.h.
95:130	Communications I	3 s.h.
96:150	Career Physics	4 s.h.
96:162	Computer Orientation	1 s.h.
96:163	Blueprint Reading I	1 s.h.
96:164	Blueprint Reading II	1 s.h.
96:167	Fundamentals of CNC	3 s.h.
96:180	Survey of Machine Tool Practices I	4 s.h.
96:181	Survey of Machine Tool Practices II	4 s.h.
96:182	Survey of Machine Tool Practices III	4 s.h.
96:193	Capstone Manufacturing Project	4 s.h.
	Total Hours	**33 s.h.**

Course Descriptions - General Machinist

91:122 Occupational Math I (2 s.h.) Prerequisite: Compass Pre-Algebra Score greater than or equal to 49 or a score greater than or equal to 16 on the math portion of the ACT exam or completion of Basic Math with a *C* or better or completion of Career Math I with a *C* or better. This course covers essential topics in algebra, including ratio and proportion, and basic statistics. This course is offered during the first eight weeks of the fall semester and the first eight weeks of the spring semester. (30-0)

91:123 Occupational Math II (2 s.h.) Prerequisite: Completion of 91:122, Occupational Math I, with a *C* or better. This course covers essential topics in geometry and trigonometry. This course is offered during the second eight weeks of the fall semester and the second eight weeks of the spring semester. (30-0)

95:130 Communications I (3 s.h.) Study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

96:150 Career Physics (4 s.h.) Prerequisite/Corequisite: one semester of Career Math. An introduction to basic operating principles of gears, levers, pulleys, simple machines, and the effects of heat on solids, liquids, and gases. (45-30)

96:162 Computer Orientation (1 s.h.) Introduction to basic computer hardware and software functions. Emphasis on using the computer as a tool to create personal and business documents. Introductory windows, word processing, spreadsheet, presentation, and Internet units give students an opportunity to view software capabilities and use some of the features, (15-15)

96:163 Blueprint Reading I (1 s.h.) An introduction to the importance of prints in industry. Covers isometric drawings, orthographic projection, auxiliary views, detail and assembly drawing, dimensions and tolerances, and sectional views. Integrates the alphabet of lines and principles of sketching. Other information covered includes title blocks, drawing change systems, drawing notes, and material lists. (0-30)

96:164 Blueprint Reading II (1 s.h.) Prerequisite/Corequisite: 96:163, Blueprint Reading I. Continues Blueprint Reading I with emphasis on geometric dimensioning and tolerancing and the interpretation of more advanced prints used in the construction of tool and die and mold building. (0-30)

96:167 Fundamentals of CNC (3 s.h.) Prerequisite/Corequisite: 96:180, Survey of Machine Tool Practices I, and 96:181, Survey of Machine Tool Practices II. Covers computer numerical control (CNC) as it relates to milling machines, turning lathes, microcomputers, and related software. Emphasis on input language, codes, machine setup and operation, inspection of parts, and communication of peripherals. (30-30)

96:180 Sur vey of Ma chine Tool Prac tices I (4 s.h.)
The student safely uses basic measuring tools, machine tools, and lay out/in spec tion tools. Em pha sis is on turning machines, drills, and hand tools. Safety is taught an en forced as it ap plies to each ma chine process. Proper ter mi nol ogy of the ma chin ist trade is emphasized. The student follows blueprints to produce prod ucts within tol er ances spec i fied. (15-90)

96:181 Sur vey of Ma chine Tool Prac tices II (4 s.h.)
Con tinues Sur vey of Ma chine Tool Prac tices I. The student safely uses ba sic mea sur ing tools, ma chine tools, and lay out/in spec tion tools. Em pha sis on ba sic mill ing ma chines. Safety is taught and en forced as it ap plies to each ma chine pro cess. Proper ter mi nol ogy of the machin ist trade is em pha sized. The stu dent fol lows blueprints to pro duce prod ucts within tol er ances spec i fied. (15-90)

96:182 Sur vey of Ma chine Tool Prac tices III (4 s.h.)
Pre req ui site: 96:180, Sur vey of Ma chine Tool Prac tices I; 96:181, Sur vey of Ma chine Tool Prac tices II. The student safely performs cylindrical grinder and surface grinder operations. Using the grinders, the student makes round and flat sur faces to con form to the spec i-fied tol er ances. Em pha sis is placed on safety, proper use of tools, and us ing cor rect ter mi nol ogy of the machin ist trade. (15-90)

96:193 Capstone Manufacturing Project (4 s.h.)
Pre req ui site: 96:180, Sur vey of Ma chine Tool Prac tices I - Pass with a “C” or better; 96:181, Sur vey of Ma chine Tool Prac tices II - Pass with a “C” or better; 96:182, Survey of Ma chine Tool Prac tices III - Pass with a “C” or better; 96:167, Fun da men tals of CNC - Pass with a “C” or better. The goal is for the learner to build an ap proved mul ti ple-part pro ject us ing ma chine tools and com mu ni-cate the suc cesses and dif fi cul ties en coun tered in the pro ject-building pro cess. (15-90)

Mechanical Design Technology

The Mechanical Design Technology curriculum provides opportunities to be productive immediately as a CAD drafter with the technical competence to keep abreast of developments in the field and allow greater potential for future advancement into design.

The NIACC Drafting Program includes instruction on Computer-Aided Design (CAD) equipment. The curriculum is designed to prepare the student to apply technical knowledge, methods, and skills in support of engineering activities while becoming proficient in CAD. The graduate is ready for immediate employment with manufacturers of various products such as farm and industrial machinery, consumer products, computers and control equipment, governmental agencies, and engineering firms.

New employees are usually assigned as CAD technicians, mechanical design drafters, CAD drafters, mechanical drafting, drafters, or designers. Upon completion of the prescribed curriculum with an average grade point of 2.00 (*C*), the student is awarded an associate in applied science degree. Some courses may be taken toward other associate degrees; check with a counselor.

ENTRANCE ADVISING

Due to the highly technical nature of these programs and NIACC's commitment to giving students the best possible opportunity for success, students will be scheduled for advisement sessions with counselors and program personnel. In these sessions, the student's career plans, previous educational background, transcripts, test scores, life experiences, and motivation will aid in designing a positive educational experience.

COLLEGE TRANSFER OPTION

Through articulation agreements with Iowa State University and the University of Northern Iowa, graduates may continue their education by transferring to baccalaureate programs in such fields as Industrial Technology, General Industry and Technology, or Manufacturing Technology. Help of a NIACC counselor or program instructor is required.

ENTRANCE REQUIREMENTS

1. Two years of high school algebra with a grade of "C" or better, OR
2. College Intermediate Algebra or equivalent with a grade of "C" or better, OR
3. COMPASS algebra test of 76 or higher.

Classes may be scheduled to accommodate the part-time student with the help of a counselor or program instructor. Students are required to complete 50 per cent of their course work for the Mechanical Design Technology Program at North Iowa Area Community College.

SUGGESTED SCHEDULE

First Term

15:114	Computer Literacy	1 s.h.
15:241	Human Relations OR 80:101 Gen Psychology (3 s.h.)	3 s.h.
90:121	Intro to Drafting	3 s.h.
90:122	Drafting I	3 s.h.
91:107	Technical Mathematics I OR 40:151 College Alg & Trig I (4 s.h.)	4 s.h.
91:120	Manufacturing Processes I	2 s.h.
95:130	Communications I OR 30:101 Comm Skills I (3 s.h. or 4 s.h.)	3 s.h.
		19 s.h.

Second Term

90:131	Drafting II	7 s.h.
91:108	Technical Mathematics II OR 40:152 College Alg & Trig II (4 s.h.)	4 s.h.
91:121	Manufacturing Processes II	2 s.h.
91:150	Statics	2 s.h.
95:131	Communications II OR 30:102 Comm Skills II (3 s.h. or 4 s.h.)	3 s.h.
		18 s.h.

Third Term

91:109	Technical Mathematics III OR 40:240 Calculus For Business (3 s.h.)	3 s.h.
91:210	Technical Physics I OR 70:280 General Physics I (4 s.h.) OR 70:122 Principles of Physics (4 s.h.) OR 70:140 Introductory Chemistry (4 s.h.)	4 s.h.
91:226	Fundamentals of Unigraphics	4 s.h.
91:227	Fundamentals of Pro Engineering	4 s.h.
91:251	Strength of Materials	3 s.h.
		18 s.h.

Fourth Term

89:150	Employment Strategies	1 s.h.
90:231	Machine Element Design	9 s.h.
91:211	Technical Physics II OR 70:281 General Physics II (4 s.h.) OR 70:122 Principles of Physics (4 s.h.) OR 70:140 Introductory Chemistry (4 s.h.)	4 s.h.
91:212	Design Research Laboratory	2 s.h.
91:240	Fluid Mechanics	3 s.h.
		19 s.h.
	Total Hours	**74 s.h.**

Course Descriptions - Mechanical Design Technology

15:114 Computer Literacy (1 s.h.) [Open Entry/Open Exit] Prerequisite: None. Emphasis on using the computer as a tool to create personal and business documents. Introductory windows, word processing, spreadsheet, presentation, database, and Internet units give students an opportunity to view software capabilities and use some of the features. Students with little or no computer background are encouraged to take this course. This course has been designated as a pass/no pass course. (0-30)

15:241 Human Relations (3 s.h.) The study of how people satisfy both personal growth needs and organizational goals in their careers. Although also interested in the why of human behavior, human relations goes further and looks at what can be done to anticipate problems, resolve them, or prevent them from happening. This field emphasizes knowledge that can be applied in practical ways to problems of interpersonal relations at work or in our personal life. Significant developments in recent years in the workplace have increased the importance of interpersonal skills in almost every type of work setting; these trends provide support for the necessity of acquiring competence in human relations. (45-0)

30:101 Communication Skills I (4 s.h.) Improvement of skills in reading, writing, speaking, and listening, with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

30:101C Communication Skills I (3 s.h.) Improvement of skills in reading and writing with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing to receive a grade of "C" or higher. (45-0)

30:102 Communication Skills II (4 s.h.) Prerequisite: 30:101, Communication Skills I. Students must have earned a "C" or higher grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101 with an emphasis on argumentative and persuasive writing and speaking, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

30:102C Communication Skills II (3 s.h.) Prerequisite: 30:101C, Communication Skills I. Students must have earned a "C" or higher grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101C with an emphasis on argumentative and persuasive writing, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos. Students must meet minimum competency requirements in writing to receive a grade of "C" or higher. (45-0)

40:151 College Algebra & Trigonometry I (4 s.h.) Prerequisite: Two years of high school algebra with a "C" or higher or 40:120, Intermediate Algebra, with a "C" or higher. This course is intended for students majoring in business, social science, biological sciences, liberal arts, and those mathematics students with insufficient background to begin the study of calculus and feel they cannot keep up the pace of Precalculus. Topics include review of algebraic operations, field properties, introduction to plane analytic geometry, including points and lines, functions of various types such as polynomials and their graphs, operations with complex numbers and circular functions. (60-0)

40:152 College Algebra & Trigonometry II (4 s.h.) Prerequisite: 40:151, College Algebra & Trigonometry I. This course is a continuation of 40:151. Topics include further study of functions, inverse functions, study of vectors, complex numbers, DeMoivre's theorem, solution of systems of equations, matrices, solid analytical geometry, probability, sequences and series, logarithmic, and exponential functions. (60-0)

40:240 Calculus for Business (3 s.h.) Prerequisite: 40:161, Precalculus, or equivalent. This course uses calculus techniques with an emphasis on applications. Topics include derivatives and their uses, exponential and logarithmic functions, integration and its applications. (45-0)

70:122 Principles of Physics (4 s.h.) Prerequisite: 40:120, Intermediate Algebra; or equivalent. An introductory level, one-term course. Major topics are measurement, matter in motion, heat, wave motion, electricity and magnetism. (45-30)

70:140 Introductory Chemistry (4 s.h.) Prerequisite: 40:060, Beginning Algebra, or equivalent. A first-year college chemistry course which covers the concepts of chemistry. Among the topics included are systems of measurement, matter and energy, atomic theory, energy levels and atomic structure, the periodic table, ionic and covalent bonding, chemical equations, stoichiometry, acids and bases, states of matter, solutions, and redox. Lab experiments are performed and complement the classroom theory. Not accepted as a prerequisite for other advanced chemistry courses except 70:273, Organic Chemistry. (45-30)

70:280 General Physics I (4 s.h.) Prerequisite: 40:151, College Algebra & Trigonometry, or equivalent. Mechanics, simple harmonic motion, waves, and fluids. Designed for students in pharmacy, medicine, dentistry, and professional fields other than engineering. Liberal arts students with an interest in science may elect this course. (45-30)

70:281 General Physics II (4 s.h.) Prerequisite: Math; 40:151, College Algebra & Trigonometry, or equivalent, and 70:280, General Physics I, or equivalent algebra-based first semester physics course as approved by the instructor. A continuation of 70:280, thermodynamics, electricity and magnetism, DC and AC circuits, optics, and atomic physics. (45-30)

80:101 General Psychology (3 s.h.) Corequisite: New students with entering ACT or COMPASS reading scores below college level will be required to co-enroll in 30:120, College Reading Skills. An introduction to the scientific study of behavior; a brief history of psychology as a science, and topics fundamental to human behav-

ior including developmental issues, sensory abilities, cognitive performance, social and emotional factors in behavior, and abnormal behavior and therapies. (45-0)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

90:121 Introduction to Drafting (3 s.h.) Fundamentals of AutoCAD; layers, icons, pull-down menu, drawing and editing commands, object snaps, screen menu, filters, text, sketch, basic construction of 2D mechanical drawings. Use of board equipment and instruments, lettering, basic geometric construction, and sketching fundamentals. (30-90)

90:122 Drafting I (3 s.h.) Prerequisite: 90:121, Intro to Drafting. A continuation of AutoCAD and drafting fundamentals; multi view projections, rays, construction lines, auxiliaries, isometric drawings, theory of orthographic projection: points, lines, planes, and auxiliaries. (30-90)

90:131 Drafting II (7 s.h.) Prerequisite: 90:121, Intro to Drafting; and 90:122, Drafting. AutoCAD fundamentals; array dimensioning (basic, intermediate, and advanced), Tolerancing, sections, threads and fasteners, isometric drawing, editing using grips, display options, editing polylines and splines, blocks, viewports, attributes, bill of materials, and assemblies. (60-195)

90:231 Machine Element Design (9 s.h.) Prerequisite: 91:150, Statics; 91:226, Fundamentals of Unigraphics; and 91:227, Fundamentals of ProEngineer; Corequisite: 91:212, Design Research Laboratory. Combines basic graphical and mathematical analysis of linkages, gears, and cams; design optimization utilizing spreadsheets as mathematical models to simulate geometric and kinematic relationships; construction of 3D parametric models including assembly implementation to create a set of working drawings including details, parts lists, and specifications; usage of handbooks and suppliers' catalogs. (60-210)

91:107 Technical Mathematics I (4 s.h.) Prerequisite: One year of high school algebra or consent of instructor. This course provides an integrated approach to mathematics designed to provide principles of measured data, engineering procedures, basic algebra, geometry, right and oblique triangle trigonometry, logarithms, and elementary vectors. Practical mathematics is emphasized. (60-0)

91:108 Technical Mathematics II (4 s.h.) Prerequisite: 91:107, Technical Mathematics I; or 40:151, College Algebra and Trigonometry I. This course is a continuation of Technical Mathematics I. Topics include advanced algebra, complex numbers, binary and hexadecimal numbers, trigonometric identities, and analytic geometry. Practical mathematics is emphasized. (60-0)

91:109 Technical Mathematics III (3 s.h.) Prerequisite: 91:108, Technical Mathematics II; or equivalent. Basic Calculus: provides manipulative skills of calculus and basic theory. Includes functions, limits, definitions, fundamental theorem, derivatives, transcendental functions, integral techniques, definite integrals, and basic applications. (45-0)

91:120 Manufacturing Processes I (2 s.h.) Knowledge and skills in manufacturing materials and the procedures used to produce products in today's modern industry. Introduction to measurement and quality assurance with an emphasis on tolerances, measurement, and calibration. Final project, create a product using manual metal cutting processes. (15-30)

91:121 Manufacturing Processes II (2 s.h.) Prerequisite: 91:120, Manufacturing Processes I. Automation methods using (CNC) Computer Numerical Control, (CAD) Computer-Aided Design, (CAM) Computer-Aided Manufacturing and the integration of these technologies, (CIM) Computer Integrated Manufacturing, and (FMS) Flexible Manufacturing Systems. Final project, create a product using CAD, CAM, and CNC. (15-30)

91:150 Statics (2 s.h.) Prerequisite/Corequisite: 91:108, Technical Mathematics II. Provides the theory and practical background for analysis of the forces acting upon an object in equilibrium. The following are stressed: resultant and equilibrium of forces, moments, concurrent and non-concurrent coplanar forces. (30-0)

91:210 Technical Physics I (4 s.h.) Prerequisite/Corequisite: 91:107, Technical Mathematics I; or 40:151, College Algebra & Trigonometry I. This course presents traditional fields of physics such as measurement, mechanics, properties of matter, simple harmonic motion, and waves. Emphasis is placed on industrial and technical applications of physics. (45-30)

91:211 Technical Physics II (4 s.h.) Prerequisite/Corequisite: 91:107, Technical Mathematics I; or 40:151, College Algebra & Trigonometry I, or an equivalent course in algebra and trigonometry. This course presents traditional fields of physics such as thermodynamics, electricity and magnetism, DC and AC circuits, and light. Emphasis is placed on industrial and technical applications of physics. (45-30)

91:212 Design Research Laboratory (2 s.h.) Prerequisite: 91:251, Strength of Materials; and 91:210, Technical Physics I; Corequisite: 91:240, Fluid Mechanics; and 90:231, Machine Element Design. Course includes instruction and laboratory techniques in Statistical Process Control, including Deming's 14 points, project selection, data gathering, variable and attribute charts, interpretations and capabilities; rapid prototyping using stereolithography equipment; and geometric dimensioning and tolerancing including functional part relationships of features, manufacturing, inspection, and economics using ANSI Y14.5M-1994. (15-30)

91:226 Fundamentals of Unigraphics (4 s.h.) Prerequisite: 90:231 Drafting II. Solid modeling fundamentals using Unigraphics CAD software. Layers, creating lines, arcs and circles, fillets and chamfers, trimming, extruding, sweeping along a guide, sketch a datum plane, blends, hollow solid, tapers, holes, slot, groove, pocket, boss, threads, and instance array. Adding orthographic views,

dimensioning, creating text, sectioning, GD&T symbols, surface finish symbols, move/copy and align views and detailed views. (30-112)

91:227 Fundamentals of ProEngineer (4 s.h.) Prerequisite: 90:122, Drafting I; 90:131, Drafting II; 91:108, Technical Mathematics II. Solid modeling fundamentals using ProEngineer CAD software. Sketcher mode part creation and sketcher constraints; holes, cuts, shafts, rounds, chamfers, slots, revolved features, patterns, sweeps, blends, and shell. Fundamental knowledge of model trees, parent-child relations, datum planes and feature relations. Assembly fundamentals including components, constraints and sub-assemblies. Drawing creation with part and assembly associativity, view types, notes, and dimensioning. (30-112)

91:240 Fluid Mechanics (3 s.h.) Prerequisite/Corequisite: 91:108, Technical Mathematics II. A basic principles course using mathematical analysis dealing with confined noncompressible fluids and applications of fluid power systems. Primary emphasis is on the topics of fluid statics, flow of fluid in pipes, and flow measurement. (45-0)

91:251 Strength of Materials (3 s.h.) Prerequisite/Corequisite: 91:109, Technical Math III; and 91:150, Statics. Course includes simple stresses and properties, moment of inertia, torsional properties, columns, beams including shear, moment and deflection diagrams and formulas, flexure formula, and combined stresses. (45-0)

95:130 Communications I (3 s.h.) Study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

95:131 Communications II (3 s.h.) Further study designed to assist students in improving and/or refining skills in the areas of reading, writing, listening, and speaking to help meet communication needs in college and for success and advancement in a career. (45-0)

Welding - Evening Program

The program is designed for industry and individuals seeking personal skill development. Students are first exposed to theory and demonstrations, along with laboratory experiences. This is followed with an open lab to allow students additional laboratory experience in order to achieve the program's outlined competencies. Upon satisfactory completion of the prescribed curriculum with an average grade point of 2.00 (C), the student is awarded a certificate.

Those currently involved in the following areas will benefit from the program:

* Maintenance
* Farm or Agre lated
* Auto
* Construction
* General industrial
* Hobbies or backyard

A student may take the program in either order.

First Term

98:110 Welding Symbols & Blueprint Reading ...2 s.h.
98:190 Oxyacetylene Welding & Cutting;
Gas Tungsten Arc Welding. ..... 3 s.h.

Second Term

98:135 Welding Symbols/Blueprint Reading II.... 2 s.h.
98:191 Shielded Metal Arc & Gas Metal Arc .....3 s.h.

Course Descriptions

Welding - Evening Program

98:110 Welding Symbols and Blueprint Reading (2 s.h.) Prerequisite: None. This course provides instruction in the fundamentals of reading and interpreting blueprints. A student learns to interpret and apply welding symbols along with identifying proper assembly procedures. (30-0)

98:135 Welding Symbols and Blueprint Reading II (2 s.h.) Prerequisite: 98:110, Welding Symbols and Blueprint Reading. This course provides instruction in the reading and interpreting of blueprints. The course covers the applications of welding symbols, dimensions, and assembly procedures. (15-30)

98:190 Oxyacetylene Welding and Cutting; Gas Tungsten Arc Welding (3 s.h.) Fusion joining of mild steel and cutting processes. The basic principles of gas tungsten arc welding including AC and DC applications. Selection of proper torch tip sizes, filler rods, angles, and travel speeds for OAW processes. The set-up and adjustment of gas tungsten arc welding equipment, along with practical experience using both ferrous and nonferrous metals. (15-90)

98:191 Shielded Metal Arc and Gas Metal Arc (3 s.h.) Flat and horizontal shielded arc, vertical, and overhead shielded arc welding. The operation of AC and DC transformer arc welders and motor-driven DC welders. The effects of amperage, polarity, and characteristics of various electrodes. Butt, fillet, corner, and lap welds are made in various positions. Application of techniques required for equipment repair. (15-90)

Industrial Electives

If electives are required for your industrial program studies, counselors and industrial instructors will help you select courses from the following course listing which will help focus your specialty study:

INDUSTRIAL ELECTIVES:
90:128 Introduction to CAD
90:129 CAD II
90:299 Special Problems in Career Programs
91:128 Basic Electricity
91:129 Industrial Electricity I
91:164 Electrical Wiring I
91:171 Electrical Wiring II
92:202 C/C++ Programming
98:191 Shielded Metal Arc and Gas Metal Arc

Course Descriptions
Industrial Electives

90:128 Introduction to CAD (2 s.h.) Prerequisite/Corequisite: none. A class in Auto CAD Release 2000 commands. A thorough introduction of two-dimensional drafting commands and command options. The sessions are hands-on using a variety of application drawing exercises that are modified or created. (15-30)

90:129 CAD II (2 s.h.) Prerequisite/Corequisite: 90:128, Introduction to CAD, or equivalent experience. This course is designed to build on the skills acquired in introduction to CAD. This course will review multiview drawings, layers, linetypes, colors, basic and advanced dimensioning, blocks and attributes, sectional views, three-dimensional drawing techniques, plotting, and printing with Auto CAD 2000. (15-30)

90:299A Special Problems in Career Programs (1 s.h.) Students may submit a proposal for a special project to the instructor. With the instructor's approval and the consent of the Division Chair and Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeated for credit. (15-0)

90:299B Special Problems in Career Programs (2 s.h.) Students may submit a proposal for a special project to the instructor. With the instructor's approval and the consent of the Division Chair and Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeated for credit. (30-0)

90:299C Special Problems in Career Programs (3 s.h.) Students may submit a proposal for a special project to the instructor. With the instructor's approval and the consent of the Division Chair and Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeated for credit. (45-0)

91:128 Basic Electricity (2 s.h.) A basic fundamentals course required as a background in a variety of fields. Lab work covers practical applications. (15-30)

91:129 Industrial Electricity I (2 s.h.) Prerequisite/Corequisite: 91:128, Basic Electricity. This course provides an understanding of the theory, operation, installation, and maintenance of motor controllers. Labs stress development and troubleshooting of basic motor control circuits. (15-30)

91:164 Electrical Wiring I (2 s.h.) Prerequisite/Corequisite: 91:128, Basic Electricity. Provides an understanding of the types of control circuits, uses of electrical devices, wiring techniques, and application of the rules and regulations in the National Electrical Code concerning residential wiring. (15-30)

91:171 Electrical Wiring II (2 s.h.) Prerequisite/Corequisite: 91:128, Basic Electricity; 91:164, Electrical Wiring I. Provides an understanding of the types of control circuits, use of electrical devices, wiring techniques, and application of the rules and regulations in the National Electrical Code concerning commercial wiring. (15-30)

92:202 C/C++ Programming (3 s.h.) Prerequisite: 91:104 Intro to Technical Computing and CAD. Structured computer program ming utilizing C/C++. Use of existing library functions. Development of structured programming practices and internal documentation. Branching, loops, pointers, strings, arrays and file I/O. Introduction to object-oriented programming. Data structure, language, and hardware interfacing concepts are introduced. Program debugging and implementation. (45-0)

98:191 Shielded Metal Arc and Gas Metal Arc (3 s.h.) Flat and horizontal shielded arc, vertical and overhead shielded arc welding. The operation of AC and DC transformer arc welders and motor-driven DC welders. The effects of amperage, polarity, and characteristics of various electrodes. Butt, fillet, corner, and lap welds are made in various positions. Application of techniques required for equipment repair. (15-90)

Are you considering transferring to a four-year college or university?

Students who earn associate degrees in the Industrial Technology programs at NIACC may wish to apply their studies toward a bachelor's degree in technology-related fields at a four-year college or university. For further information on such options as industrial technology (manufacturing), construction management, electromechanical systems, engineering technology, general industry and technology, manufacturing technology, and technology education at Iowa State University, the University of Northern Iowa, Upper Iowa University, and Wartburg College, please see pages 125-149 in the catalog or speak with a NIACC advisor.

High School Partnerships

ARTICULATION

POST SECONDARY ENROLLMENT OPTIONS

CAREER READINESS COUNCIL

TECH PREP

HIGH SCHOOL PARTNERSHIPS

NIACC is currently developing cooperative programs with high schools in our service area to identify Career Program prerequisites, to reward students for previous learning experiences, to provide a challenging educational experience for each student, and to ensure a smoother transition for students into postsecondary degree programs.

Articulation

Articulation is a process whereby students can receive tuition-free college credits toward graduation for successfully completing certain high school courses identified to have college-level material. NIACC faculty members meet with high school teachers to carefully compare their course offerings and identify areas of content overlap. The result is savings of time and financial resources for the student interested in a time-shortened degree or increased competence and employment potential for the student interested in an advanced skills degree. Contact your counselor to obtain a list of high school courses that articulate into NIACC Career Programs.

Post Secondary Enrollment Options

The Post Secondary Enrollment Options Act provides high school juniors and seniors with the opportunity to take college courses prior to high school graduation. The act has a dual purpose: 1) to provide a constant challenge for students by promoting rigorous educational pursuits; and 2) to provide a wider variety of options for students. Students may earn high school and college credit for courses taken. Post secondary credits earned are transferable to other colleges and universities depending on degree requirements at that institution. Contact your counselor for further information on Post Secondary Enrollment Options.

Career Readiness Council

The Area Two Career Readiness Council--a group comprised of representatives from high schools, Workforce Development, business and industry, organized labor, Northern Trails Area Education Agency, the Transition Advisory board, and NIACC--has established career education goals for Area Two:

* Develop shared programs.
* Develop a comprehensive career development system.
* Continue support for applied academic course work.
* Foster business, industry, and professional connections for our students, teachers, and employers.
* Meet increased needs associated with diversity.

As a member of the Career Readiness Council, NIACC collaborates with the representatives to implement these broad-based career education goals.

Tech Prep

Tech Prep is a partnership between secondary schools, postsecondary institutions, business and industry, and other community groups that focuses on providing students with the skills necessary to perform in today's highly technical workforce. A major component of the program is an applied (hands-on) curriculum that recognizes the widely varying learning styles of students. It involves the creation of a carefully designed sequence of high school and college courses leading to an associate degree in a number of fields. Student career exploration and planning, along with a parental community awareness of workforce needs and employment opportunities, are vital components of a Tech Prep program.

For information about the Tech Prep programs available at your high school, contact your high school counselor or contact the NIACC Tech Prep Coordinator at 641-422-4177 or 1-888-GO NIACC, ext. 4177, E-mail: ostrajea@niacc.edu.

College Transfer Programs

This guide has been prepared for NIACC students transferring to the colleges and universities listed.

Curriculum is recommended for each of the major courses that can be taken at NIACC. Students should, however, check the requirements of their major with a NIACC counselor/advisor. Sample two-year plans are available on the Internet at www.niacc.edu.

Students are also encouraged to correspond with their transfer college to obtain a verification of their planned courses while at NIACC.

Articulation 2000 seeks to strengthen articulation and transfer by looking beyond the traditional and common practice. The colleges/universities participating in NIACC's Articulation 2000 Program are Buena Vista University, Central College, Drake University, Iowa State University, Simpson College, the University of Iowa, University of Northern Iowa, Upper Iowa University, and Wartburg College. Course equivalency sheets between NIACC and these institutions are available from a NIACC counselor/advisor and on the web. Joint admission is one of the outcomes of NIACC's Articulation 2000 Program.

Transfer Division Chairs:

Gary Christiansen, Business
(641) 422-4226

Larry Eichmeier, Agriculture
(641) 422-4225

Gary Forbess, Industrial
(641) 422-4202

Donna Orton, Health
(641) 422-4216

Dennis Vrba, Natural Science
(641) 422-4320

James Zirnhelt, Social Science and Humanities
(641) 422-4282

Larry Mozack, Transfer Relations
(641) 422-4205

Accounting

Grand View College

Completion of the A.A. Degree at NIACC will meet most general education requirements; the following courses are recommended as electives or general education within one's A.A. studies:

Microeconomics	3 s.h.
Macroeonomics	3 s.h.
College Algebra and Trigonometry I	4 s.h.
Business Law I/II	6 s.h.
MIS I	3 s.h.
Principles of Management	3 s.h.
Accounting Principles I/II	6 s.h.
Personal Income Tax	3 s.h.
Marketing	3 s.h.
Money and Banking	3 s.h.

Agriculture and Agricultural Related

The range of career opportunities and majors in agriculture is so great that it is impossible to list a suggested curriculum for each. The catalog for Iowa State University states: Requirements for any four-year curriculum are at least as extensive as those shown below.

Communication Skills I & II	8 s.h.
Mathematics, Chemistry, Computer Science, Physics, and Statistics	13 s.h.
Biological Principles, Zoology, Botany, Microbiology, Genetics	6 s.h.
Economics, Government, Psychology, Sociology (Economics, Government required of most curriculums)	6 s.h.
Art, History, Literature, Music, Philosophy	6 s.h.

Since there is a wide variation in the required courses for the various curricula in agriculture, it is the responsibility of each student, in consultation with his/her advisor or counselor, to determine the specific courses required for the particular curriculum or major in which the student is interested.

Iowa State University

NIACC and Iowa State University's Department of Agricultural Education and Studies have teamed up to design a unique program in agriculture. The first two years of the program can be taken at NIACC and the final two years are completed at Iowa State University. Students completing the NIACC program are awarded an associate in applied science degree in Agricultural Operations. Those continuing on to complete the two-year program at ISU will receive a bachelor of science degree in Agricultural Studies. Note: Iowa State University College of Agriculture students must certify English proficiency by obtaining a "C" or better in written and verbal communication courses. Students completing the prescribed courses will fulfill the College of Agriculture's intensive requirements in ethics, problem solving, communication, and environment.

The following courses have been articulated with Iowa State University's College of Agriculture.

Animal Science I	3 s.h.
Animal Science II	3 s.h.
Computer Applications for Agriculture	3 s.h.
Crop Science I	3 s.h.
Crop Science II	3 s.h.
Intro to Agbusiness	3 s.h.

Art

Communication Skills I & II	8 s.h.
Art History I	4 s.h.
Art History II	4 s.h.
Drawing	3 s.h.
Ceramics	3 s.h.
Two-Dimensional Design	3 s.h.
Graphic Design	3 s.h.
Painting I	3 s.h.
Painting II	3 s.h.
Creative Photography	3 s.h.
Natural Science	8 s.h.
Social Science	8 s.h.

The art major should take additional hours or general education in the pursuit of the associate in arts degree.

Drake University

Drake offers majors in Art History, Drawing, Graphic Design, Painting, Printmaking, and Sculpture, and also offers a minor in art. Students wanting to teach art in elementary or secondary school may complete an art endorsement through the School of Education at Drake. Students interested in Drake's art programs should contact the Department of Art and Design early to plan for transfer and scholarship portfolio review.

Communication Skills I & II	4 s.h.
Communication Skills - Speaking	2 s.h.
History	6 s.h.
Life Science (must include lab)	4 s.h.
Physical Science (must include lab)	4 s.h.
Mathematics (College Algebra or higher)	3-4 s.h.
Values and Ethics	3 s.h.
International/Multicultural Awareness	3 s.h.
History of Art I & II	8 s.h.
Drawing	3 s.h.*
Two-Dimensional Design	3 s.h.*
Painting I, II	6 s.h.*
Intro Computer-Aided Graphic Design	3 s.h.*
Computer-Aided Images	3 s.h.*

*Credit for specific requirements for art majors may require portfolio validation in studio courses and proficiency validation in Art History courses. All art courses with a grade of "C" or better can count as art electives.

Many of the courses listed above also fulfill Drake curriculum requirements. For specific Drake curriculum (general education) information, students should access the Drake curriculum website at http://www.educ.drake.edu/dc or contact the Office of Admission,

1-800-44-DRAKE ext. 3181. It is recommended that students planning for transfer to Drake save NIACC course syl labi for in-depth re view for Drake curriculum out comes ful fill ment upon trans fer.

Simpson College

Courses which may be taken at North Iowa Area Community College to complete major requirements at Simpson College:

Art His tory I	4 s.h.
Art His tory II	4 s.h.
Art in Ele men tary School	3 s.h.
Drawing	3 s.h.
Ceramics	3 s.h.
Creative Photography	3 s.h.
Intermediate Photography	3 s.h.
Paint ing I	3 s.h.
Paint ing II	3 s.h.
Two-Dimensional De sign	3 s.h.

Up per Iowa Uni ver sity

Stu dents should con sider tak ing the fol low ing courses to meet re quire ments. Com ple tion of the A.A. de gree at NI ACC will meet the gen eral edu cat ion re quire ments.

Art His tory I & II	8 s.h.
Drawing	3 s.h.
Ce ramics or Paint ing I	3 s.h.
Two-Dimensional De sign	3 s.h.

ArtEducation

Upper Iowa University

RESIDENTIAL CAMPUS

Stu dents should con sider tak ing the fol low ing courses to meet re quire ments in the fol low ing ma jors. Com ple tion of the A.A. de gree at NI ACC will meet the gen eral education requirements.

His tory of Art I and II	8 s.h.
Drawing	3 s.h.
Ceramics	3 s.h.
Paint ing I and II	6 s.h.
Art in the El e men tary School	3 s.h.

Athletic Trainer

Iowa State University

The ath letic train ing pro gram pre pares stu dents for the NATA cer ti fi ca tion ex ami na tion. Ad mis sion to this program is de ter mined by GPA in foun da tion courses and clini cal hours un der a cer ti fied ath letic trainer. The program is ad min is tered through the De part ment of Health and Human Performance. See course rec om men da tions un der Physi cal Education- Athletic Train ing.

Also avail able at the Uni ver sity of Iowa, the Uni ver sity of North ern Iowa, Min ne sota State Uni ver sity - Mankato, and Up per Iowa Uni ver sity. (Need 1500 hours of su per vised train ing.)

Simpson College

Courses that may be taken at North Iowa Area Com mu nity Col lege to com plete ma jor re quire ments:

Kinesiology	4 s.h.

Biology

Grand View College

Com ple tion of the A.A. De gree at NIACC will meet most gen eral ed u ca tion re quire ments; the fol low ing courses are recommended as electives or general education within one's A.A. stud ies:

Col lege Al ge bra and Trig o nom e try II	4 s.h.
Environmental Science	3 s.h.
Microbiology	4 s.h.
Chem is try Prin ci ples I/II	10 s.h.
Genetics	4 s.h.
Precalculus	4 s.h.
Anat omy and Phys i ol ogy I/II	8 s.h.
Or ganic Chem is try I/II	10 s.h.
Gen eral Phys ics I/II or Col lege Phys ics I/II	8-10 s.h.

Upper Iowa University

RESIDENTIAL CAMPUS

Stu dents should con sider tak ing the fol low ing courses to meet re quire ments in the fol low ing ma jors. Com ple tion of the A.A. de gree at NI ACC will meet the gen eral education requirements.

Bi ol ogy I and II	6 s.h.
Microbiology	4 s.h.
Gen eral Chem is try I and II	6 s.h.
Gen eral Phys ics I and II or Or ganic Chem is try I and II	8-10 s.h.

Biology and Environmental Science

Simpson College

Courses which may be taken at North Iowa Area Community College to complete major requirements at Simpson Col lege:

Bi ol ogy I and II	8 s.h.
Microbiology	4 s.h.
Human Biology	*4 s.h.
Genetics	4 s.h.
Nu tri tion OR Health and Nu tri tion	*3 s.h.
Anat omy and Physi ol ogy I and II	8 s.h.
Chem is try Prin ci ples I and II	10 s.h.
Gen eral Phys ics I and II OR Col lege Phys ics I and II	8-10 s.h.

* Hu man Bi ol ogy, Nu tri tion, and Health and Nu tri tion do not ful fill a re quire ment for Bi ol ogy or Environmental Science

Business

The first two years of a four- year program in business administration, accounting, business education, or any other curriculum in business administration will usually consist primarily of liberal arts. After completion of the first two years of a four- year program in business, the student applies for admission at the selected transfer institution. It is at this time that he/she is asked to indicate a chosen business major and is advised to meet requirements for the degree. The requirements of the various four-year institutions vary somewhat; hence, the student should check carefully the admission and curriculum requirements of the institution to which he/she plans to transfer.

The following courses are common to all business curricula at the colleges listed below:

Communication Skills I & II	8 s.h.
Macro and Microeconomics	6 s.h.
Introduction to Computers	3 s.h.
Intro to Statistics	3 s.h.
Accounting Principles I & II	6 s.h.
Social Sciences	3 s.h.
Humanities	8 s.h.
College Mathematics	3-4 s.h.

In addition, these colleges have the following specific requirements:

Buena Vista University (*Mason City Campus*)

ACCOUNTING

Business Law I	3 s.h.
Quantitative Methods	3 s.h.
Marketing	3 s.h.
Business Statistics	3 s.h.

MANAGEMENT/ENTREPRENEURSHIP

Principles of Management	3 s.h.
Business Law I	3 s.h.
Quantitative Methods	3 s.h.
Marketing	3 s.h.
Business Statistics	3 s.h.
Human Resource Management	3 s.h.

FINANCE AND BANKING

Quantitative Methods	3 s.h.
Business Law I	3 s.h.
Business Statistics	3 s.h.

MANAGEMENT INFORMATION SYSTEMS

Quantitative Methods	3 s.h.
Business Law I	3 s.h.
Marketing	3 s.h.
Business Statistics	3 s.h.
MIS I	3 s.h.

Drake University

BUSINESS

Accounting, Actuarial Science, Finance, General Business, Information Systems, Insurance, International Business, Management, Marketing; all majors in the College of Business and Public Administration are offered as joint majors with Accounting.

Accounting and Actuarial Science major applicants must have a cumulative GPA of at least 2.50 for admission.

Courses that are recommended as part of the common business curricula:

Microeconomics	3 s.h.
Macroeconomics	3 s.h.
Accounting Principles I	3 s.h.
Accounting Principles II	3 s.h.
Business Law I	3 s.h.
Calculus for Business*	3 s.h.
Business Statistics	3 s.h.

*Analytic Geometry and Calculus I may be taken instead of Calculus for Business. Students interested in Actuarial Science as a major need to take Analytic Geometry and Calculus I, II, and III.

For specific general education requirements, business majors should access the Drake curriculum website at www.edu.drake.edu/dc or contact the Office of Admissions 1-800-44-DRAKE, ext. 3181. It is recommended that NIACC students save their course syllabi for review for Drake curriculum outcomes fulfillment upon transfer.

Grand View College

Completion of the A.A. Degree at NIACC will meet most general education requirements; the following courses are recommended as electives or general education within one's A.A. Studies:

Business Law I	3 s.h.
MIS I	3 s.h.
Principles of Management	3 s.h.
Accounting Principles I/II	6 s.h.
Business Communications	3 s.h.
Marketing	3 s.h.

Iowa State University

ACCOUNTING, FINANCE, MANAGEMENT, MANAGEMENT INFORMATION SYSTEMS, MARKETING, PRODUCTION/OPERATIONS MANAGEMENT, TRANSPORTATION AND LOGISTICS

Students at Iowa State University begin in the College of Business as a Pre- Business student. Students will declare a major and enter the professional program once they have earned a 2.5 GPA (cumulative or foundation) and have completed 30 credits including the foundation courses. The foundation courses include:

Communication Skills I and II	6-8 s.h.
Quantitative Methods	3 s.h.
Accounting Principles I	3 s.h.
Introduction to Computers	3 s.h.
Microeconomics	3 s.h.
Business Statistics	3 s.h.

IST Major Courses . . . . . 40-44 s.h.
Communication Skills I and II . . . . . 8 s.h.
Accounting Principles I and II . . . . . 6 s.h.
Microeconomics . . . . . 3 s.h.
Macroeconomics . . . . . 3 s.h.
Quantitative Methods . . . . . 3 s.h.

Minnesota State University - Mankato

ACCOUNTING, FINANCE, MANAGEMENT, MARKETING, AND INTERNATIONAL BUSINESS

All majors in the MSU College of Business have the same core course requirements. Courses that are recommended as part of the common business core are:

Macroeconomics . . . . . 3 s.h.
Microeconomics . . . . . 3 s.h.
Accounting Principles I . . . . . 3 s.h.
Accounting Principles II . . . . . 3 s.h.
College Algebra & Trigonometry I . . . . . 4 s.h.
Business Statistics . . . . . 3 s.h.
Computer Applications . . . . . 3 s.h.
Management Information Systems I. . . . . 3 s.h.
World Language (for International Business - Intermediate Level) . 8 s.h.

The MSU College of Business also requires a 2.5 cumulative GPA for entrance into the major. Students transferring to MSU with a completed A.A. degree generally meet the MSU general education requirements. However, additional lower division courses may be required for the major if not already complete.

Simpson College

Courses which may be taken at North Iowa Area Community College to complete major requirements at Simpson College.

MANAGEMENT ACCOUNTING & ECONOMICS

Intro to Business OR
Principles of Management . . . . . 3 s.h.
Business Law I . . . . . 3 s.h.
Business Law II OR Law and Banking . . . . . 3 s.h.
Macroeconomics . . . . . 3 s.h.
Microeconomics . . . . . 3 s.h.
Ethics . . . . . 3 s.h.
General Insurance . . . . . 3 s.h.
Business Statistics . . . . . 3 s.h.
Calculus for Business . . . . . 3 s.h.
Marketing . . . . . 3 s.h.
Intro to Accounting or Accounting Princ I . . . . 3 s.h.
Accounting Principles II . . . . . 6 s.h.
Managing the Entrepreneurial Venture OR
Seminar in Entrepreneurship . . . . . 3 s.h.
Managing Human Resources . . . . . 3 s.h.
On-The-Job Training . . . . . 3 s.h.

University of Iowa

(Min. 2.75 GPA)

Admission is competitive, based on cumulative GPA and combined grades in six prerequisite courses. Students hoping to enter the College of Business may not have a grade lower than "C" on any individual prerequisite course.

Apply to the College of Liberal Arts as a pre-business major after one year. Iowa will move student to business when all admission prerequisite and GPA criteria are met. This early entry is best for financial aid, housing, and course availability.

ACCOUNTING, ECONOMICS, FINANCE, MANAGEMENT AND ORGANIZATIONS, MANAGEMENT SCIENCES, AND MARKETING

Calculus for Business . . . . . 3 s.h.
Accounting Principles I & II . . . . . 6 s.h.
Business Law I . . . . . 3 s.h.
Global and Cultural Studies . . . . . 3 s.h.
Business Statistics . . . . . 3 s.h.

Effective Summer 2002 and after, the University of Iowa College of Business will require second level proficiency in a single foreign language to graduate.

University of Northern Iowa

(Min. 2.50 GPA)

ACCOUNTING, FINANCE, MANAGEMENT, MARKETING, MANAGEMENT INFORMATION SYSTEMS

Quantitative Methods . . . . . 3 s.h.
Business Statistics . . . . . 3 s.h.
Introduction to Computers and Information Systems. . . . . 3 s.h.
Macroeconomics . . . . . 3 s.h.

BUSINESS TEACHING MAJOR

Introduction to Teaching. . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.
Advanced Keyboarding (recommended, not required) . . . . . 3 s.h.
Quantitative Methods . . . . . 3 s.h.
Business Statistics . . . . . 3 s.h.
Introduction to Computers and Information Systems . . . . . 3 s.h.
Macroeconomics . . . . . 3 s.h.

Upper Iowa University

RESIDENTIAL CAMPUS

Students should consider taking the following courses to meet requirements in the following majors. Completion of the A.A. degree at NIACC will meet the general education requirements in addition to courses common to all business curricula.

MARKETING MAJOR

Business Law I . . . . . 3 s.h.
MIS I. . . . . 3 s.h.
Business Statistics . . . . . 3 s.h.
Marketing . . . . . 3 s.h.
Principles of Management . . . . . 3 s.h.
Principles of Advertising . . . . . 3 s.h.
Retailing . . . . . 3 s.h.

ACCOUNTING MAJOR

Business Law I . . . . . 3 s.h.
MIS I . . . . . 3 s.h.
Business Statistics . . . . . 3 s.h.
Marketing . . . . . 3 s.h.
Principles of Management . . . . . 3 s.h.

MANAGEMENT MAJOR

Business Law I . . . . . 3 s.h.
MIS I . . . . . 3 s.h.
Business Statistics . . . . . 3 s.h.
Marketing . . . . . 3 s.h.
Principles of Management . . . . . 3 s.h.
Principles of Supervision . . . . . 3 s.h.
Management of Human Resources . . . . . 3 s.h.

MIS MAJOR

Business Law I . . . . . 3 s.h.
MIS I . . . . . 3 s.h.
Business Statistics . . . . . 3 s.h.
Marketing . . . . . 3 s.h.
Principles of Management . . . . . 3 s.h.
Database Management . . . . . 3 s.h.

Wartburg College

ACCOUNTING, FINANCE

One laboratory science . . . . . 4 s.h.
Western Civilization . . . . . 4 s.h.
Quantitative Methods . . . . . 3 s.h.
Intro to Computers and Information Systems . 3 s.h.
Business Statistics . . . . . 3 s.h.

MANAGEMENT, MARKETING

One laboratory science . . . . . 4 s.h.
Western Civilization . . . . . 4 s.h.
Principles of Management . . . . . 3 s.h.
Marketing . . . . . 3 s.h.
Business Law I . . . . . 3 s.h.
Quantitative Methods . . . . . 3 s.h.
Intro to Computers and Information Systems . 3 s.h.
Business Statistics . . . . . 3 s.h.

INTERNATIONAL BUSINESS

One laboratory science . . . . . 4 s.h.
Western Civilization . . . . . 4 s.h.
French, German, or Spanish
(through the intermediate level) . . . . . 8-16 s.h.
Quantitative Methods . . . . . 3 s.h.
Intro to Computers and Information Systems . 3 s.h.
Business Statistics . . . . . 3 s.h.

Chiropractic

Palmer *(Min. GPA 2.50 and 90 s.h.)*

Communication Skills I & II . . . . . 8 s.h.
General Chemistry I & II . . . . . 10 s.h.
OR
Chemistry Prin. I & II . . . . . 10 s.h.
Organic Chemistry I & II . . . . . 10 s.h.
General Physics I & II . . . . . 8 s.h.
Anatomy & Physiology I and II . . . . . 8 s.h.
Humanities/Social Sciences . . . . . 15 s.h.
General Psychology . . . . . 3 s.h.

Coaching

Since February 1, 1985, NIACC has been designated as an approved provider of the Coaching Authorization Training Program for State of Iowa licensure. The program consists of four courses: Theory, Ethics, and Professional Responsibilities of Coaching; Introduction to Anatomy and Physiology for Coaching; Human Development in Sports; and Care and Prevention of Athletic Injuries. This program is approved for teachers desiring to obtain the coaching endorsement, as well as others seeking the coaching authorization. Completion of the program enables the student to be licensed to coach any sport at the public school or community college level.

Iowa State University

A State of Iowa coaching endorsement can be earned through the Physical Education Licensure program. A coaching minor is also available. The endorsement is administered through the Department of Health and Human Performance. See course recommendations for the coaching endorsement under Physical Education-Licensure.

Simpson College

A State of Iowa coaching endorsement can be earned through the Physical Education Licensure program. The endorsement is administered through the Physical Education Department. See course recommendations for the coaching endorsement under Physical Education-Licensure.

Computer Science

Drake University

COMPUTER SCIENCE

Students may take the following courses in the major area at NIACC:

Analytic Geometry and Calculus I & II . . . . . 8 s.h.

For specific Drake Curriculum (general education) requirements, students should access the Drake Curriculum website at http://www.edu.drake.edu/dc or contact the Office of Admissions 1-800-44-DRAKE, ext. 3181. It is recommended that NIACC students save NIACC course syllabi for in-depth review for Drake Curriculum outcomes fulfillment upon transfer.

Grand View College

Completion of the A.A. Degree at NIACC will meet most general education requirements; the following courses are recommended as electives or general education within one's A.A. Studies:

College Algebra and Trigonometry I/II . . . . . 8 s.h.
C/C++ Programming . . . . . 3 s.h.

Iowa State University

COMPUTER SCIENCE

Courses which may be taken at North Iowa Area Community College to meet specific major requirements at Iowa State University:

Communication Skills I & II . . . . . 8 s.h.
Analytic Geometry and Calculus I & II . . . . . 8 s.h.
College Physics I & II . . . . . 10 s.h.

Complete additional courses to satisfy A.A. degree requirements at North Iowa Area Community College.

Minnesota State University - Mankato

COMPUTER SCIENCE

Students interested in a straight Computer Science (CS) major should complete the requirements for the bachelor of science degree in addition to the following courses at North Iowa Area Community College:

Communication Skills I & II . . . . . 8 s.h.
Analytic Geometry and Calculus I & II . . . . . 8 s.h.
Chemistry Principles I & II OR
College Physics I & II OR
Biology I & II . . . . . 8-10 s.h.

CIS/MIS

Courses which may be taken at NIACC to meet specific major requirements:

Communication Skills I & II . . . . . 8 s.h.
Intro to Statistics. . . . . 3 s.h.
Analytic Geometry and Calculus I . . . . . 4 s.h.

Students transferring to MSU with a completed A.A. degree will likely have met the MSU general education requirements. However, additional lower division courses may be required for the major if not already complete.

If the student plans to complete a Business Administration and Computer Science Interdisciplinary (ICIS) major, he/she should complete the Business Administration Curriculum and fill in the electives with the above Computer Science courses. Computer Science (CS) majors should write to the Admissions Office and ask for a computer science brochure.

Simpson College

COMPUTER SCIENCE

Courses which may be taken at North Iowa Area Community College to complete major requirements at Simpson College:

Analytical Geometry and Calc I and II . . . . . 8 s.h.
Business Statistics . . . . . 3 s.h.

COMPUTER INFORMATION SYSTEMS

Courses that may be taken at North Iowa Area Community College to complete major requirements at Simpson College:

Business Statistics . . . . . 3 s.h.
Analytical Geometry and Calculus I and II . . . 8 s.h.
Intro to Business or
Principles of Management . . . . . 3 s.h.
Macroeconomics . . . . . 3 s.h.
Microeconomics . . . . . 3 s.h.
Intro to Accounting or
Accounting Principles I . . . . . 3 s.h.

University of Northern Iowa

COMPUTER SCIENCE

Courses which may be taken at North Iowa Area Community College to meet specific major requirements at University of Northern Iowa:

B.A. Degree:

Analytic Geometry and Calculus I and Intro to Statistics . . . . . 7 s.h.

B.S. Degree:

Analytic Geometry and Calculus I & II . . . . . 8 s.h.

Complete additional courses to satisfy A.A. degree requirements at North Iowa Area Community College.

COMPUTER INFORMATION SYSTEMS

Courses which may be taken at North Iowa Area Community College to meet specific major requirements at the University of Northern Iowa:

Accounting Principles I and II . . . . . 8 s.h.
Introduction to Statistics . . . . . 3 s.h.
Macroeconomics . . . . . 3 s.h.

Complete additional courses to satisfy A.A. degree requirements at North Iowa Area Community College.

Conservation

This major has a wide variety of preparation possibilities and should be discussed with your counselor. See Agriculture.

Conservation Management

Upper Iowa University

Conservation Management is designed for students seeking a career in conservation.

Courses which may be taken at North Iowa Area Community College to meet specific major requirements at Upper Iowa University:

Biology I and II . . . . . 8 s.h.
Microbiology . . . . . 4 s.h.
Principles of Management . . . . . 3 s.h.
Intro to American Government OR
American State and Local Government . . . 3 s.h.

Criminal Justice

Buena Vista University

Courses which may be taken at North Iowa Area Community College to meet specific major requirements at Buena Vista University:

General Psychology . . . . . 3 s.h.
Sociology or Social Problems . . . . . 3 s.h.
American Government . . . . . 3 s.h.
Criminal Law I . . . . . 3 s.h.
Criminal Law II . . . . . 3 s.h.
Administration of Justice . . . . . 3 s.h.
Criminal Investigation . . . . . 3 s.h.

Complete additional courses to satisfy A.A. degree requirements at North Iowa Area Community College. A second major or minor is required for this degree.

Grand View College

Completion of the A.A. Degree at NIACC will meet most general education requirements; the following courses are recommended as electives

General Psychology . . . . . 3 s.h.
Sociology . . . . . 3 s.h.
Social Problems . . . . . 3 s.h.
Computer Applications . . . . . 3 s.h.
Administration of Justice . . . . . 3 s.h.

Simpson College

Courses that may be taken at North Iowa Area Community College to complete major requirements:

MAJOR (Take these in addition to those listed with choice of concentration below):

Business Statistics . . . . . 3 s.h.
Ethics . . . . . 3 s.h.

WITH JUSTICE CONCENTRATION:

Criminal Law I . . . . . 3 s.h.
Social Problems . . . . . 3 s.h.
Criminal Investigation . . . . . 3 s.h.

WITH ADMINISTRATION CONCENTRATION:

Intro to Accounting or
Accounting Principles I . . . . . 3 s.h.
Intro to Business or
Principles of Management . . . . . 3 s.h.
Managing Human Resources . . . . . 3 s.h.
Criminal Investigation . . . . . 3 s.h.

WITH CORRECTIONS CONCENTRATION:

Social Problems . . . . . 3 s.h.

Dentistry

University of Iowa

Each applicant for the College of Dentistry at the University of Iowa must present three years of credit comprising not less than 94 semester hours of work. Preference for admission is given to students who have completed a standard baccalaureate degree or who are pursuing a combined program in which they will earn the baccalaureate degree while completing the freshman year in dentistry. The academic work would include the courses listed below which are attainable at North Iowa Area Community College:

Communication Skills I & II . . . . . 8 s.h.
Biology I & II . . . . . 8 s.h.
General Physics I and II . . . . . 8 s.h.
Chemistry Principles I and II . . . . . 10 s.h.
Organic Chemistry I and II . . . . . 10 s.h.

General Education Electives: sufficient course work in social sciences, philosophy, history, foreign languages, and mathematics to provide a well-rounded educational background.

All students are required to take the Dental Admission Test (DAT) on or before August 1 of the year preceding the year they expect to matriculate in a dental school. Test application deadline typically is 30 to 45 days prior to the exam.

Applicants must submit a completed application form to the American Association of Dental Schools Application Service (AADSAS). The AADSAS forms are available from the University Office of Admissions or the College of Dentistry Office for Student Affairs. A computerized DAT is available throughout the year at designated Sylvan Testing Centers.

Applications are accepted beginning June 1 of the year prior to the year for which application is made. Completed applications should be on file at AADSAS by November 1. Applicants should apply as early as possible and should not delay until after the Dental Admission Test (DAT) is taken. Notifications of acceptance are sent beginning December 1.

Education

Secondary Teacher Education--for specific information about teaching physical education, see Physical Education-Licensure.

There is no standardized curriculum in education. Each college or university has its own requirements which differ in varying degrees from other schools. Below are listed representative colleges to which most North Iowa Area Community College students transfer, together with a list of courses which may be obtained at North Iowa Area Community College to meet necessary requirements. There are some states that do not accept transfer education courses unless they are taken in that particular state.

Buena Vista University

ELEMENTARY EDUCATION

Children's Literature . . . . . 3 s.h.
U.S. History or Non U.S. History . . . . . 3 s.h.
American Government . . . . . 3 s.h.
Geography course . . . . . 3 s.h.
Exploring Music or Essentials of Art or
Intro to Theater OR Art History . . . . . 3 s.h.
Physical Science OR Intro to Chemistry . . . . 4 s.h.
Biology . . . . . 3 s.h.
Communication Skills I & II . . . . . 8 s.h.
General Psychology . . . . . 3 s.h.
Mathematics for Elementary Teachers . . . . . 3 s.h.
A literature course . . . . . 3 s.h.
Introduction to Teaching . . . . . 3 s.h.
Educational Media Techniques . . . . . 3 s.h.
Introduction to Philosophy or Ethics . . . . . 3 s.h.
Educational Psychology and Human
Growth OR Child Psychology . . . . . 3 s.h.
Intermediate Algebra . . . . . 4 s.h.

1. Students seeking admission into the Teacher Education program at Buena Vista University need a minimum GPA of 2.50. Students are also required to take the PRAXIS I (pre-professional skills test) and receive minimum scores of 171 (Math), 173 (Reading), and 172 (Writing). The PRAXIS may be taken before transferring to Buena Vista University. Also, all Buena Vista University students are required to take Proficiency Exams in the areas of Math and Written Communications.

2. All Incompletes must be completed before eligible to student teach.

3. Communication Skills I & II (8 s.h.) waives public speaking requirement.

Endorsements available in Reading, Pre-K, Middle School, as well as a minor in Multicategorical- Resource Special Education.

SECONDARY EDUCATION

U.S. History OR American Government . . . . . 3 s.h.
Exploring Music OR Essentials of Art OR
Intro to Theater OR Art History . . . . . 3 s.h.
Physical Science OR Intro to Chemistry . . . . 4 s.h.
Biology . . . . . 3 s.h.
Communications I and II . . . . . 8 s.h.
General Psychology . . . . . 3 s.h.
Educational Psychology and Human Growth OR
Child Psychology . . . . . 3 s.h.
Public Speaking . . . . . 3 s.h.
Creative Writing . . . . . 3 s.h.
Introduction to Teaching . . . . . 3 s.h.
Educational Medial Techniques . . . . . 3 s.h.
Introduction to Philosophy OR A.A. degree . . 3 s.h.
Intermediate Algebra . . . . . 4 s.h.

1. Secondary Education requires major in content area.

2. Students seeking admission into the Teacher Education program at Buena Vista University need a minimum GPA of 2.50. Students are also required to take the PRAXIS I (pre-professional skills test) and receive minimum scores of 171 (Math), 173 (Reading), and 172 (Writing). The PRAXIS may be taken before transferring to Buena Vista University. Also, all Buena Vista University students are required to take Proficiency Exams in the areas of Math and Written Communications.

3. All Incompletes must be completed prior to beginning student teaching.

4. Communications I and II (8 s.h.) waives public speaking course requirement.

Drake University

EDUCATION

Students planning to transfer into the School of Education at Drake University need a minimum cumulative GPA of 2.50 at 60 semester hours of credit. For admission into teacher education at Drake, students are also required to take the PPST (pre-professional skills test) and receive minimum scores of: Math - 169, Reading - 171, Writing - 171. The PPST may be taken prior to transfer or after arrival at Drake.

Both Elementary and Secondary Education majors complete the following courses:

Communication Skills I and II . . . . . 8 s.h.
Mathematics for Elementary Teachers
(elementary only) . . . . . 3 s.h.
American History . . . . . 6 s.h.
American Government . . . . . 3 s.h.
Public Speaking . . . . . 2 s.h.
Biology I (may take Biological
Principles + Lab) . . . . . 4 s.h.
Chemistry Principles I . . . . . 5 s.h.
Intro to Physical Science + Lab . . . . . 4 s.h.
Intro to Teaching . . . . . 3 s.h.
Educational Measurement & Evaluation . . . . 2 s.h.
Ed Media & Classroom
Computing Techniques . . . . . 3 s.h.
Mainstreaming the Exceptional Learner . . . . . 2 s.h.

It is advised that students interested in an education major decide on a teaching content area or area of endorsement and begin taking required courses at NIACC. Consult the Drake University/NIACC Articulation agreement or contact the Associate Dean in the School of Education (1-800-44-DRAKE ext. 2599) for course recommendations.

Many of the courses listed above also fulfill Drake Curriculum requirements. For specific Drake Curriculum website at http://www.educ.drake.edu/dc or contact the Office of Admission, 1-800-44-DRAKE ext. 3181. It is recommended that students planning for transfer to Drake save NIACC course syllabi for in-depth review for Drake Curriculum outcomes fulfillment upon transfer.

Grand View College

ELEMENTARY EDUCATION

General Psychology . . . . . 3 s.h.
Educational Psychology . . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.
Essentials of Art . . . . . 3 s.h.
Art in the Elementary School . . . . . 3 s.h.
Children's Literature . . . . . 3 s.h.
Mathematics for Elementary Teachers . . . . . 3 s.h.
College Algebra and Trigonometry . . . . . 4 s.h.
Introduction to Teaching . . . . . 3 s.h.
Educational Measurement and Evaluation . . . 2 s.h.
Including Exceptional Students . . . . . 3 s.h.
Educational Media . . . . . 3 s.h.

ELEMENTARY/SECONDARY ART EDUCATION

General Psychology . . . . . 3 s.h.
Educational Psychology . . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.
College Algebra and Trigonometry . . . . . 4 s.h.
Introduction to Teaching . . . . . 3 s.h.
Educational Measurement and Evaluation . . . 2 s.h.
Including Exceptional Students . . . . . 3 s.h.
Art History I/II . . . . . 6 s.h.
Drawing . . . . . 3 s.h.
Ceramics . . . . . 3 s.h.
2-D Design . . . . . 3 s.h.
Graphic Design . . . . . 3 s.h.
Painting I/II . . . . . 6 s.h.
Digital Illustration . . . . . 3 s.h.

SECONDARY EDUCATION/BUSINESS ADMINISTRATION

General Psychology . . . . . 3 s.h.
Educational Psychology . . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.
Macroeconomics . . . . . 3 s.h.
Microeconomics . . . . . 3 s.h.
Business Law I/II . . . . . 6 s.h.
MIS I . . . . . 3 s.h.
Accounting Principles I/II . . . . . 6 s.h.
College Algebra and Trigonometry . . . . . 4 s.h.
Introduction to Teaching . . . . . 3 s.h.
Educational Measurement and Evaluation . . . 2 s.h.
Including Exceptional Students . . . . . 3 s.h.
Educational Media . . . . . 3 s.h.

Iowa State University

High School Teacher (Secondary Teacher Education). Students entering ISU for secondary education licensure are admitted into the college that offers their teaching subject (e.g., math, English, chemistry, etc. to Liberal Arts and Sciences, Agricultural Education, to the College of Agriculture). The College of Liberal Arts and Sciences will honor the A.A. degree as fulfilling the general education requirements of that college. Students should refer to that curriculum in this guide as well as the section in the ISU catalog titled "Teacher Education" and confer with the counselors at North Iowa Area Community College in preparing a schedule.

ELEMENTARY EDUCATION

The requirements for elementary education at Iowa State University are quite structured. The following list of courses will meet requirements for Iowa State University:

Communication Skills I and II . . . . . 8 s.h.
Human Growth and Development . . . . . 3 s.h.
American Government . . . . . 3 s.h.
Additional Social Science . . . . . 3 s.h.
Anthropology, Economics, Geography,
Psychology, Sociology, Humanities . . . . . 6 s.h.
Art, Foreign Language, History, Literature, Music,
Philosophy, Theater, Physical Education . . . . 3 s.h.
(May include First Aid and Physical Safety)
Biological Science . . . . . 3 s.h.
Biological Principles, Anatomy & Physiology
Physical Science . . . . . 4 s.h.
Physical Science, Principles of Physics,
General Chemistry, Astronomy, General Physics
Mathematics for Decision Making . . . . . 3 s.h.
Mathematics for Elementary Teachers . . . . . 3 s.h.
Additional Mathematics . . . . . 4 s.h.
College Algebra/Trigonometry, Pre-Calculus,
Analytical Geometry/Calculus I
Introduction to Teaching . . . . . 3 s.h.
Children's Literature . . . . . 3 s.h.
Educational Psychology . . . . . 3 s.h.
Art in Elementary School . . . . . 3 s.h.

Additional courses may fit into various areas of specialization. Contact an ISU advisor for details at 515-294-7021.

All students seeking recommendation for a teaching license from ISU must be admitted to the Teacher Education Program. Eligibility for the program is obtained after completing at least 9 credits at ISU with a 2.50 GPA, an ACT composite of 19 or greater, at least a "C" grade in Communications Skills I and II, and good mental/physical health. Students who do not meet the ACT requirements may retake the test or take the PPST and receive minimum scores of: 172 - Reading; 172 - Writing; and 170 - Mathematics.

Minnesota State University - Mankato

SECONDARY EDUCATION (High School Teaching)

In general, students planning to teach in the secondary schools should follow a general liberal arts curriculum. Students should consult the MSU catalog for specific freshman-sophomore level courses required in their major field.

ELEMENTARY EDUCATION

The course requirements for elementary education at MSU are very structured. Students are encouraged to speak with an advisor in the MSU College of Education to plan their transfer into this program. The following list of courses at NIACC will satisfy some of the requirements for elementary education at Minnesota State University, Mankato:

Art in the Elementary School . . . . . 3 s.h.
Communication Skills I and II . . . . . 8 s.h.
Mathematics for Decision Making . . . . . 3 s.h.
Mathematics for Elementary Teachers . . . . . 3 s.h.

Biological Principles & Lab . . . . . 4 s.h.
Principles of Physics . . . . . 4 s.h.
American History . . . . . 6 s.h.
Children's Literature . . . . . 3 s.h.
Intro to Acting . . . . . 3 s.h.

A 2.5 cumulative grade point average is required for professional education. The Pre-Professional Skills Test must be complete and on file at MSU before a student is allowed to take professional education courses. Students should contact the MSU College of Education Advising Center with questions.

Simpson College

EDUCATION

Students planning to transfer into the Teacher Education program at Simpson will need a minimum cumulative GPA of 2.75 to be accepted for admission to the program. Students will be required to take the C-BASE basic skills test. It is advised that students select a content area and begin taking classes at NIACC if possible. You may contact the Director of Transfer Enrollment at Simpson (1-800-362-2454) for course recommendations.

Courses which may be taken at North Iowa Area Community College to complete major requirements at Simpson College:

EDUCATION

Communication Skills I and II . . . . . 8 s.h.
Intro to Teaching . . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.
Including Exceptional Students . . . . . 3 s.h.
Ed Media & Classroom
Computing Techniques . . . . . 3 s.h.

Elementary Only:
Math for Elementary Teachers . . . . . 3 s.h.
Intro to American Government . . . . . 3 s.h.
American History to 1877 . . . . . 3 s.h.
OR American History 1877 to Present . . . . 3 s.h.
Western Civilization to 1648 . . . . . 4 s.h.
OR World Literature I . . . . . 3 s.h.
Western Civilization 1648 to Present . . . . . 4 s.h.
OR World Literature II . . . . . 3 s.h.
One of the following:
Biological Principles and Lab . . . . . 3 s.h.
Environmental Science . . . . . 3 s.h.
Biology I . . . . . 4 s.h.
Biology II . . . . . 4 s.h.
Human Biology . . . . . 4 s.h.
AND
One of the following:
Principles of Physics . . . . . 4 s.h.
General Chemistry I . . . . . 5 s.h.
Chemistry Principles I . . . . . 5 s.h.
Introductory Chemistry I . . . . . 4 s.h.
General Physics I . . . . . 4 s.h.
College Physics I . . . . . 5 s.h.

University of Iowa

EDUCATION

Students planning to transfer into the College of Education at The University of Iowa need a minimum of a 2.70 cumulative GPA and at least 30 semester hours of credit. Admission is competitive and is based on an achievement profile which includes: GPA; PRAXIS I; experience; references; and a personal statement. In addition, students should have completed an approved 10-hour volunteer practicum. Testing and registration details for the PRAXIS I are available at www.teachingandlearning.org.

Education majors fulfill the same General Education Program Requirements (GERs) as students in the College of Liberal Arts. Therefore, NIACC students may use the A.A. degree to automatically fulfill all GERs, with the exception of foreign language. Foreign language may be taken in high school or at NIACC to meet these requirements. Licensure requirements include the following courses: college- level math; one biological science; one physical science; one behavioral science; and one general social science.

ELEMENTARY AND SECONDARY EDUCATION

In addition to the above requirements, students interested in teaching at the elementary level may wish to include the following:
Intro to Teaching . . . . . 3 s.h.
Educational Psychology . . . . . 3 s.h.

ADDITIONAL SECONDARY EDUCATION REQUIREMENTS

In addition to the general education requirements explained above, students interested in teaching at the secondary level should consult their NIACC counselor in selecting courses approved for use toward their teaching major. Intro to Teaching and Educational Psychology may also fulfill major requirements.

APPLICATION DEADLINES:
Fall Semester - June 15
Spring Semester - October 15
Summer Session - March 15

University of Northern Iowa

All education majors should take the Pre- Professional Skills Test (PPST) during their sophomore year and have the scores reported to UNI. Education majors should maintain a minimum 2.5 grade point average.

ELEMENTARY EDUCATION

Elementary Education * K-6 should consider:
Art in the Elementary School . . . . . 3 s.h.
Communication Skills I and II . . . . . 8 s.h.
Children's Literature . . . . . 3 s.h.
Mathematics for Elementary Teachers . . . . . 3 s.h.

Biology and Physical Science . . . . . 8 s.h.
One course in Life Science and one in Physical Science (at least one must have a lab, if AA is not earned)
Child Psychology (not required) . . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.
Introduction to Teaching . . . . . 3 s.h.
Ed Media/Classroom Computer Techniques . 3 s.h.
Educational Psychology . . . . . 3 s.h.
Ed Measurement and Evaluation . . . . . 2 s.h.
Mainstreaming the Exceptional Student . . . . . 2 s.h.

EARLY CHILDHOOD EDUCATION

Early Childhood Education majors (birth to grade 3) should consider:

Mathematics for Elementary Teachers . . . . . 3 s.h.
Educational Media Techniques . . . . . 3 s.h.
Children's Literature . . . . . 3 s.h.
Communication Skills I and II . . . . . 8 s.h.
Introduction to Teaching . . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.
Education Psychology . . . . . 3 s.h.
Ed Measurement & Evaluation . . . . . 3 s.h.
Mainstreaming the Exceptional Student . . . . . 3 s.h.
Nutrition . . . . . 3 s.h.
Biological Principles and Physical Science . . 8 s.h.

INTEGRATED TECHNOLOGY EDUCATION

Integrated Technology Education majors should consider:

Communication Skills I & II . . . . . 8 s.h.
General Physics I . . . . . 4 s.h.
Intro to Statistics . . . . . 3 s.h.
Intro to Teaching . . . . . 3 s.h.
Human Growth & Development . . . . . 3 s.h.
Educational Psychology . . . . . 3 s.h.
Mainstreaming the Exceptional Student . . . . . 2 s.h.
Educational Measurement & Evaluation . . . . 2 s.h.

SPECIAL EDUCATION

Special education majors (ages 5-21: moderate, severe, profound mental disabilities) should consider:

Intro to Teaching . . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.
Educational Psychology . . . . . 3 s.h.
Educational Measurement & Evaluation . . . . 2 s.h.
Ed Media/Classroom Computer Techniques . 3 s.h.
Biology and Physical Science . . . . . 8 s.h.

SECONDARY EDUCATION

Education majors with an interest in teaching at the secondary level should consider:

Educational Media Techniques . . . . . 3 s.h.
Intro to Teaching . . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.
Educational Psychology . . . . . 3 s.h.
Educational Measurement & Evaluation . . . . 2 s.h.
Biology and Physical Science . . . . . 8 s.h.
Mainstreaming the Exceptional Student . . . . . 2 s.h.

Available course work in major and/or minor.

Students who plan to receive an Iowa Teacher's license must complete a life and physical science course.

Wartburg College

Acceptance into the Teacher Education and Student Teaching programs. Transfer students must complete one term at Wartburg to establish their GPA before applying for acceptance into the above programs.

A 2.5 overall GPA is required in course work taken at Wartburg College.

ELEMENTARY EDUCATION

Introduction to Teaching . . . . . 3 s.h.
Educational Media Techniques . . . . . 3 s.h.
Communication Skills I & II . . . . . 8 s.h.
Children's Literature . . . . . 3 s.h.
Biological Principles and . . . . . 3 s.h.
Biological Principles Laboratory . . . . . 1 s.h.
General Psychology . . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.
Public Speaking . . . . . 2 s.h.

SECONDARY EDUCATION

Introduction to Teaching . . . . . 3 s.h.
Educational Media Techniques . . . . . 3 s.h.
Communication Skills I & II . . . . . 8 s.h.
General Psychology . . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.

Secondary education majors must also meet the specific departmental requirements in their teaching major at Wartburg College.

Other Colleges and Universities

The student who plans to transfer to a college or university other than those listed above should confer with a counselor at North Iowa Area Community College in order that a satisfactory program may be arranged.

Engineering

Iowa State University

The basic programs for all professional curricula of the College of Engineering are similar, and thus a student may transfer from one department to another within the college without undue loss of time. There are some differences; hence, the student who desires to complete work in minimum time will find it desirable to select a major department as soon as possible. The basic program includes both the following list of courses shared in common and requirements for individual curriculums. Students who are not adequately prepared may have to take additional math courses.

Courses which may be taken at North Iowa Area Community College to meet the requirements of the basic program generally common to all professional engineering curricula include the following:

Communication Skills I and II . . . . . 8 s.h.
Analytic Geometry and Calculus . . . . . 12 s.h.
Differential Equations . . . . . 3 s.h.

Chemistry Principles OR . . . . . 5 s.h.
General Chemistry I and II . . . . . 10 s.h.
College Physics . . . . . 10 s.h.
Orientation to Engineering . . . . . 0 s.h.
Engineering Graphics and Design . . . . . 3 s.h.
Engineering Problems with FORTRAN . . . . . 3 s.h.
Statics of Engineering . . . . . 3 s.h.
Mechanics of Materials . . . . . 3 s.h.
Socio-Humanistic electives . . . . . 16-18 s.h.

There are a few exceptions to the above requirements and a few additional required courses for some areas of engineering. See your counselor or engineering instructor or ISU catalog for details.

Minnesota State University - Mankato

Engineering curricula offered at Minnesota State University - Mankato are Electrical Engineering and Mechanical Engineering, Civil Engineering, and Computer Engineering.

Courses which may be taken at North Iowa Area Community College to meet the requirements of the basic program common to all professional engineering curricula include the following:

Communication Skills I . . . . . 3 s.h.
Analytic Geometry and Calculus . . . . . 12 s.h.
Engineering Graphics and Design . . . . . 3 s.h.
Statics of Engineering . . . . . 3 s.h.
Chemistry Principles . . . . . 5 s.h.
College Physics . . . . . 10 s.h.
Recommended Humanities and Social Science Electives (consult catalog)

Also required for Electrical Engineering and Mechanical Engineering:

Differential Equations . . . . . 3 s.h.
Macro or Micro economics . . . . . 3 s.h.
Engineering Graphics and Design . . . . . 3 s.h.
Engineering Problems with FORTRAN . . . . . 3 s.h.
Orientation to Engineering . . . . . 0 s.h.

University of Iowa

The following Engineering undergraduate degrees are offered at the University of Iowa:

Biomedical Engineering
Chemical Engineering
Civil Engineering
Electrical Engineering
Industrial Engineering
Mechanical Engineering

Courses which may be taken at North Iowa Area Community College to meet the requirements of the basic program common to all professional engineering curricula include the following:

Communication Skills . . . . . 8 s.h.
Analytic Geometry and Calculus . . . . . 12 s.h.
Differential Equations . . . . . 3 s.h.
Chemistry Principles . . . . . 5-10 s.h.
College Physics . . . . . 10 s.h.
Mechanics of Materials . . . . . 3 s.h.
Engineering Graphics and Design . . . . . 3 s.h.
Engineering Problems with FORTRAN . . . . . 3 s.h.
Statics of Engineering . . . . . 3 s.h.
Social Sciences/Humanities . . . . . 9 s.h.

Students transferring directly to the College of Engineering must have demonstrated success in math, science, and engineering courses (generally a 2.5 or higher combined GPA in these foundation subjects, with no grade lower than a "C"). At a minimum, transfer students need to have completed at least one semester of Calculus and either Chemistry Principles or College Physics.

Environmental Science/ Environmental Policy

Drake University

An interdisciplinary program, this new major is housed in the College of Arts & Sciences. This degree is roughly 60 percent natural science and 40 percent social science and humanities. It is designed to prepare students for opportunities in several environmental fields. These include environmental analysis, in which biological, chemical, and physical tests are used to assess pollution or environmental impact; environmental management, which concerns the understanding, communication, and administration of environmental policy; and environmental conservation for work with conservation organizations or as a naturalist. Field experiences will be an important part of the program.

Students planning for this major should include the following NIACC course work:

Biology I . . . . . 4 s.h.
Chemistry Principles I & II . . . . . 10 s.h.
Organic Chemistry . . . . . 5 s.h.
General Physics . . . . . 4 s.h.
Information and Technological Literacy . . . . . 3 s.h.
Introduction to Statistics . . . . . 3 s.h.
Communication Skills I and II . . . . . 8 s.h.
Ethics . . . . . 3 s.h.
History . . . . . 6 s.h.
Fine Arts Appreciation . . . . . 3 s.h.
International & Multicultural Understanding . . 3 s.h.
Social Problems . . . . . 3 s.h.
Microeconomics . . . . . 3 s.h.

Many of the courses listed above also fulfill Drake Curriculum requirements. For specific Drake Curriculum (general education) information, students should access the Drake Curriculum website at http://www.educ.drake.edu/dc or contact the Office of Admission, 1-800-44-DRAKE, ext. 3181. It is recommended that students planning for transfer to Drake save NIACC course syllabi for in-depth review for Drake Curriculum outcomes fulfillment upon transfer.

Exercise Science

Iowa State University

This program prepares students for careers in fitness and wellness fields. Graduates are hired as exercise specialists in corporations, private health clubs, hospitals (cardiac rehabilitation) and other agencies which provide fitness/wellness activities. The program is administered through the Department of Health and Human Performance. See course recommendations listed under Physical Education- Exercise Science.

Graphic Arts

Grand View College

Completion of the A.A. Degree at NIACC will meet most general education requirements; the following courses are recommended as electives or general education within one's A.A. Studies:

- Encounters in Humanities . . . . . 2 s.h.
- Essentials of Art . . . . . 3 s.h.
- Art in the Elementary School . . . . . 3 s.h.
- Art History I/II . . . . . 6 s.h.
- Drawing . . . . . 3 s.h.
- Ceramics . . . . . 3 s.h.
- Graphic Design . . . . . 3 s.h.
- Painting I/II . . . . . 6 s.h.
- Digital Illustration . . . . . 3 s.h.

Home Economics

University of Northern Iowa

INTERIOR DESIGN

- Intro to Computers and Information Systems . 3 s.h.
- Macroeconomics . . . . . 3 s.h.
- Microeconomics . . . . . 3 s.h.
- Accounting Principles I . . . . . 3 s.h.

TEXTILES AND APPAREL

- Macroeconomics . . . . . 3 s.h.
- Microeconomics . . . . . 3 s.h.
- Accounting Principles I . . . . . 3 s.h.
- Marketing - Elective . . . . . 3 s.h.
- Intro to Computers and Information Systems . 3 s.h.

Iowa State University

FAMILY AND CONSUMER SCIENCES EDUCATION

The following courses, taken at North Iowa Area Community College, will meet requirements for the first two years at Iowa State University for family and consumer sciences education. Other specific programs in the College of Family and Consumer Sciences may be worked out with a counselor at North Iowa Area Community College.

- Communication Skills I and II . . . . . 8 s.h.
- Western Civilization I and II . . . . . 8 s.h.
- Psychology . . . . . 3 s.h.
- Human Growth and Development . . . . . 3 s.h.
- Sociology . . . . . 3 s.h.
- Economics . . . . . 3 s.h.
- Inorganic Chemistry . . . . . 10 s.h.
- Organic Chemistry (add for certification)* . . . 4 s.h.
- Biological Principles . . . . . 4 s.h.
- Introduction to Education . . . . . 3 s.h.
- Essentials of Art . . . . . 3 s.h.
- Physical Education . . . . . 2 s.h.
- Nutrition . . . . . 3 s.h.
- American History . . . . . 3 s.h.
- American Government . . . . . 3 s.h.
- Educational Psychology . . . . . 3 s.h.

Iowa State University and North Iowa Area Community College have a number of planned transfer agreements in the area of home economics. For more information, contact a NIACC counselor.

Human Services

Buena Vista University

Complete courses to satisfy A.A. degree requirements at North Iowa Area Community College.

A second major or minor is required for this degree. The following courses will apply to a business minor.

- Accounting Principles I . . . . . 3 s.h.
- Business Law I . . . . . 3 s.h.
- Principles of Management . . . . . 3 s.h.
- Marketing . . . . . 3 s.h.
- Quantitative Methods . . . . . 3 s.h.
- Macroeconomics . . . . . 3 s.h.

Grand View College

Completion of the A.A. Degree at NIACC will meet most general education requirements; the following courses are recommended as electives or general education within one's A.A. Studies:

- General Psychology . . . . . 3 s.h.
- Sociology . . . . . 3 s.h.
- Social Problems . . . . . 3 s.h.
- Human Growth and Development . . . . . 3 s.h.
- Introduction to Human Services . . . . . 3 s.h.

Upper Iowa University

RESIDENTIAL CAMPUS

Students should consider taking the following courses to meet requirements in the following majors. Completion of the A.A. degree at NIACC will meet the general education requirements.

- General Psychology OR Sociology . . . . . 3 s.h.
- Marriage and Family . . . . . 3 s.h.
- Intro to Human Services . . . . . 3 s.h.
- State and Local Government . . . . . 3 s.h.
- Macroeconomics . . . . . 3 s.h.
- Human Growth and Development . . . . . 3 s.h.

Industrial Technology

University of Northern Iowa

NIACC's Electromechanical Systems Technology (page 107) and Mechanical Design Technology (page 117) are articulated with the University of Northern Iowa's Department of Industrial Technology. The programs, with appropriate option, meet requirements for a bachelor of science degree in Electromechanical Systems, General Industry and Technology, or Manufacturing Technology at UNI.

These articulated programs allow the student to complete an associate in applied science degree in Electromechanical Systems Technology or Mechanical Design Technology while maintaining the option of transferring to the University of Northern Iowa after completing the NIACC program.

While enrolled in the Electromechanical Systems Technology or Mechanical Design Technology Programs, the following course options may be taken to maximize transfer effectiveness.

ELECTROMECHANICAL SYSTEMS TECHNOLOGY

UNI - Electro-Mechanical Systems Major
1. Industrial Supervision and Management Option
2. Engineering Technology Option

96:132 Electrical Concepts
91:175 DC/AC Theory
91:104 Intro to Tech Computing & CAD
91:179 Electronic Devices & Circuits I
91:214 Digital Electronics
91:105 Motors, Controls, & Industrial Wiring
91:110 Electronics Tech Internship
91:281 Microprocessors
91:204 Advanced Control Systems
91:206 Computer Automated Manufacturing
91:207 Industrial Instrumentation
92:227 Automated Manufacturing Processes
89:150 Employment Strategies
80:101 General Psychology
70:140 Introductory Chemistry (ISU or UNI)
70:280 General Physics I
70:281 General Physics II (UNI only)
40:140 Intro to Statistics
40:151 College Alg & Trig I
40:152 College Alg & Trig II
40:240 Calculus for Business
30:101 Comm Skills I
30:102 Comm Skills II

MECHANICAL DESIGN TECHNOLOGY

UNI -1. Technology Management Major
2. Manufacturing Technology Major

90:121 Intro to Drafting
90:122 Drafting
90:131 Drafting II
90:133 Computer Orientation
90:231 Machine Element Design
91:120 Manufacturing Processes I
91:121 Manufacturing Processes II
91:150 Statics
91:212 Design Research Laboratory
91:226 Fundamentals of Unigraphics
91:227 Fundamentals of ProEngineering
91:240 Fluid Mechanics
91:251 Strength of Materials
89:150 Employment Strategies
80:101 General Psychology
70:122 Principles of Physics
70:140 Introductory Chemistry
70:280 General Physics I
70:281 General Physics II
40:140 Intro to Statistics
40:151 College Alg & Trig I
40:152 College Alg & Trig II
40:240 Calculus For Business
30:101 Comm Skills I
30:102 Comm Skills II

See your counselor or program instructor for details concerning these options.

Other courses which may be taken at NIACC to meet specific University of Northern Iowa Industrial Technology major requirements:

CONSTRUCTION MANAGEMENT MAJOR
(Bachelor of Science)

- Accounting Principles I . . . . . 3 s.h.
- Intro to Computers and Information Systems . 3 s.h.
- General Physics I . . . . . 4 s.h.
- General Chemistry . . . . . 4 s.h.
- Quantitative Methods . . . . . 3 s.h.
- Analytic Geometry and Calculus I . . . . . 4 s.h.
- Intro to Statistics . . . . . 3 s.h.

ELECTRO-MECHANICAL SYSTEMS MAJOR
(Bachelor of Science)

INDUSTRIAL SUPERVISION AND MANAGEMENT OPTION

- General Physics I and II
- OR
- College Physics I and II . . . . . 8-10 s.h.
- Accounting Principles I . . . . . 3 s.h.

ENGINEERING TECHNOLOGY OPTION

- Analytic Geometry/Calculus I and II . . . . . 8 s.h.
- General Physics I and II
- OR
- College Physics I and II . . . . . 8-10 s.h.

TECHNOLOGY MANAGEMENT
(Bachelor of Arts)

- Precalculus . . . . . 4 s.h.
- OR
- Introduction to Statistics . . . . . 3 s.h.
- Principles of Physics I . . . . . 4 s.h.

MANUFACTURING TECHNOLOGY MAJOR
(Bachelor of Science)

- Analytic Geometry and Calculus I . . . . . 4 s.h.
- General Physics I AND
- College Physics I . . . . . 8-10 s.h.
- Introduction to Statistics . . . . . 3 s.h.

TECHNOLOGY EDUCATION MAJOR - TEACHING
(Bachelor of Arts)

- General Physics I . . . . . 4 s.h.
- Introduction to Statistics . . . . . 3 s.h.
- Introduction to Teaching . . . . . 3 s.h.
- Human Growth and Development . . . . . 3 s.h.
- Educational Psychology . . . . . 3 s.h.
- Ed Measurement & Evaluation . . . . . 2 s.h.
- Mainstreaming the Exceptional Student . . . . . 2 s.h.

Information Systems Technology/MIS

Buena Vista University

IST Major Courses . . . . . 40-44 s.h.

- Communication Skills I, II . . . . . 8 s.h.
- Accounting Principles I, II . . . . . 6 s.h.
- Principles of Management . . . . . 3 s.h.
- Business Law I . . . . . 3 s.h.
- Quantitative Methods . . . . . 3 s.h.
- OR Analytic Geometry and Calculus I . . . . 4 s.h.
- Marketing . . . . . 3 s.h.
- Business Statistics . . . . . 3 s.h.
- MIS I . . . . . 3 s.h.
- Macroeconomics . . . . . 3 s.h.
- Microeconomics . . . . . 3 s.h.

Drake University

INFORMATION SYSTEMS

- Microeconomics . . . . . 3 s.h.
- Macroeconomics . . . . . 3 s.h.
- Accounting Principles I . . . . . 3 s.h.
- Accounting Principles II . . . . . 3 s.h.
- Business Law I . . . . . 3 s.h.
- Calculus for Business* . . . . . 3 s.h.
- Business Statistics . . . . . 3 s.h.

* Analytic Geometry & Calculus I may be taken instead of Calculus for Business.

In addition, students may take the following courses in the major area at NIACC:

- Computer Applications or
- Intro to Computers . . . . . 3 s.h.
- Management Information Systems I . . . . . 3 s.h.

For specific Drake Curriculum (general education) information, students should access the Drake Curriculum website at http://www.educ.drake.edu/dc or contact the Office of Admission, 1-800-44-DRAKE x 3181. It is recommended that students planning for transfer to Drake save NIACC course syllabi for in-depth review for Drake Curriculum outcomes fulfillment upon transfer.

Iowa State University

IST Major Courses . . . . . 40-44 s.h.

- Communication Skills I and II . . . . . 8 s.h.
- Accounting Principles I and II . . . . . 6 s.h.
- Microeconomics . . . . . 3 s.h.
- Macroeconomics . . . . . 3 s.h.
- Quantitative Methods . . . . . 3 s.h.

University of Northern Iowa

IST Major Courses . . . . . 40-44 s.h.

- Communication Skills I, II . . . . . 8 s.h.
- Western Civ I or II . . . . . 4 s.h.
- Encounters in Humanities . . . . . 2 s.h.
- Intro to Statistics . . . . . 3 s.h.
- Social Science elective (see advisor) . . . . . 3 s.h.
- Quantitative Methods . . . . . 3 s.h.

Macroeconomics . . . . . 3 s.h.
Accounting Principles I or II, Business
Statistics, or Microeconomics . . . . . 3 s.h.
Physical Education . . . . . 2 s.h.

Upper Iowa University

IST Major Courses . . . . . 40-44 s.h.
Communication Skills I, II . . . . . 8 s.h.
Ethics . . . . . 3 s.h.
Macroeconomics . . . . . 3 s.h.
Microeconomics . . . . . 3 s.h.
MIS I . . . . . 3 s.h.
Introduction to Statistics . . . . . 3 s.h.

**Discussions are currently under way to articulate the IST program with other colleges and universities in Iowa and Minnesota. Contact an advisor or counselor for updated information on IST program articulation.*

Journalism

Drake University

JOURNALISM AND MASS COMMUNICATION
Advertising (Management or Creative Track), Public Relations, Electronic Media (Broadcast News, Radio-Television), News-Internet, Magazines.

A student wishing to enter the School of Journalism and Mass Communication at Drake University must have a cumulative GPA of 2.25. Courses which may be taken at NIACC are listed below:

Communication Skills I . . . . . 4 s.h.
Communication Skills - Speaking . . . . . 2 s.h.
History . . . . . 6 s.h.
Fine Arts Appreciation . . . . . 3 s.h.
Life and Physical Sciences (must include lab) 8 s.h.
Mathematics . . . . . 3 - 4 s.h.
Values and Ethics . . . . . 3 s.h.
International/Multicultural Awareness . . . . . 3 s.h.
Introduction to Journalism . . . . . 3 s.h.
News Writing and Reporting . . . . . 3 s.h.
Principles of Advertising (advertising majors) 3 s.h.

Many of the courses listed above also fulfill Drake Curriculum requirements. For specific Drake Curriculum (general education) information, students should access the Drake Curriculum website at http://www.educ.drake.edu/dc or contact the Office of Admission, 1-800-44-DRAKE, ext. 3181. It is recommended that students planning for transfer to Drake save NIACC course syllabi for in-depth review for Drake Curriculum outcomes fulfillment upon transfer.

Iowa State University

All majors in general journalism and science journalism must meet the requirements of the College of Liberal Arts and Sciences. In addition, Principles of Advertising (3 s.h.), Introduction to Photography (3 s.h.), Creative Writing (3 s.h.), Introduction to Journalism (3 s.h.), and News writing and Reporting (3 s.h.) should be considered.

Simpson College

Courses that may be taken at North Iowa Area Community College to complete major requirements:
Communication Skills I & II . . . . . 8 s.h.
Newswriting and Reporting . . . . . 3 s.h.

University of Iowa

All majors in the School of Journalism and Mass Communication at the University of Iowa must meet the general education requirements of the College of Liberal Arts at that institution (see curriculum under Liberal Arts). The following courses are recommended for an associate in arts degree:

Principles of Economics . . . . . 6 s.h.
Psychology . . . . . 3 s.h.
Foreign Language (fourth level) . . . . . 0-16 s.h.
Government . . . . . 3 s.h.
Sociology . . . . . 3 s.h.
Introduction to Journalism . . . . . 3 s.h.
Newswriting and Reporting . . . . . 3 s.h.

Admission to the major is competitive. Applicants must have taken or be taking two prerequisite foundation courses, the rhetoric courses, and have completed a minimum of 45 s.h. Contact the School of Journalism for application and deadline information.

Law

Drake University

Applicants to accredited colleges of law must have earned a baccalaureate degree. Drakes offers a pre-law program of study which is adaptable to the requirements of any designated major, as well as an interdisciplinary major in Law, Politics & Society.

Students may want to include the following courses in their NIACC program of study:

Communication Skills I & II . . . . . 8 s.h.
Speech . . . . . 2 s.h.
History . . . . . 6 s.h.
College Algebra & Trigonometry I OR Analytic
Geometry and Calculus I . . . . . 4 s.h.
Foreign Language . . . . . 0-16 s.h.
International/Multicultural Awareness . . . . . 3 s.h.
Fine Arts . . . . . 3 s.h.
Principles of Economics . . . . . 6 s.h.
Ethics . . . . . 3 s.h.
American Government . . . . . 3 s.h.
Sociology . . . . . 3 s.h.
Psychology . . . . . 3 s.h.
Physical Sciences (must include lab) . . . . . 8 s.h.

Many of the courses held above also fulfill Drake Curriculum requirements. For specific Drake Curriculum (general education) requirements, prospective students should access the Drake Curriculum website at www.educ.drake.edu/dc or contact the Office of Admission, 1-800-44-DRAKE, ext. 3181. It is recommended that students planning for transfer to Drake save NIACC course syllabi for in-depth review for Drake Curriculum outcomes fulfillment upon transfer.

University of Iowa

An applicant for admission to the College of Law at the University of Iowa must have completed a baccalaureate degree prior to admission. The baccalaureate degree may be received in any major. Recommended courses which the student may take at North Iowa Area Community College toward this degree are.

Communication Skills I & II . . . . . 8 s.h.
Western Civilization . . . . . 8 s.h.
Foreign Language (fourth level) . . . . . 0-16 s.h.
Sociology and Social Problems . . . . . 6 s.h.
World Literature . . . . . 6 s.h.
Mathematics . . . . . 3-5 s.h.
Science . . . . . 4-5 s.h.
Accounting . . . . . 6 s.h.
Psychology . . . . . 6 s.h.
Economics . . . . . 6 s.h.
American Government . . . . . 6 s.h.

Complete additional courses to satisfy A.A. degree requirements at North Iowa Area Community College.

Liberal Arts/Undecided

Associate in Arts-- purpose of the degree includes:

1. Provide a degree goal for students who choose to follow a course of study which is specifically designed for transfer to a baccalaureate degree program.
2. Provide the essential general education, grade, and semester hour requirements for upper division status at most senior colleges and universities.

Requirements for the degree follow:

1. Completion of sixty (60) semester hours of work consisting of courses in which the principal design is for a baccalaureate program.
2. One half of the required semester hours must be completed in residence at North Iowa Area Community College including 15 of the last 30 semester hours.
3. A minimum cumulative grade point average of 2.00 (*C*). Includes transfer work from other institutions.
4. Completion of the following general education core with a minimum of 40 semester hours.

a. Communications . . . . . 8 s.h.
This requirement can be satisfied by baccalaureate-oriented communications or speech courses with a minimum of two courses in English composition.
b. Social Sciences . . . . . 8 s.h.
c. Humanities . . . . . 8 s.h.
d. Natural Sciences . . . . . 8 s.h.
Must include one math and one science course
e. Distributed Requirement . . . . . 8 s.h.
To be taken from among the four divisions above.

Marketing

Simpson College

Courses that may be taken at North Iowa Area Community College to complete major requirements:

Microeconomics . . . . . 3 s.h.
Business Statistics . . . . . 3 s.h.
Accounting Principles I and II . . . . . 6 s.h.
Intro to Business or
Principles of Management . . . . . 3 s.h.
Business Law I . . . . . 3 s.h.
Marketing . . . . . 3 s.h.

Medical Technology
(Clinical Lab Science)

To qualify for training at a school for medical technologists approved by the American Medical Association, a student must have at least three years of college work which includes the successful completion of at least 94 semester hours of work. Courses for Medical Technology (Clinical Lab Science) which may be obtained at North Iowa Area Community College are listed below:

Communication Skills I & II . . . . . 8 s.h.
Chemistry Principles . . . . . 10 s.h.
Organic Chemistry . . . . . 8 s.h.
Quantitative Analysis . . . . . 4 s.h.
Biology I & II . . . . . 8 s.h.
Microbiology . . . . . 4 s.h.
Anatomy and Physiology . . . . . 8 s.h.
College Mathematics (including Statistics) and
Algebra and Trigonometry II or Pre Calc. . . . . 7 s.h.
Foreign Language . . . . . 8 s.h.
Principles of Physics (recommended) . . . . . 4 s.h.
Social Science Electives . . . . . 8 s.h.

Electives, as for any professional career, should include broad general education in English, social sciences, arts, and humanities. Advanced mathematics and typing will also be helpful.

Students wishing to qualify for the bachelor's degree will need to meet the core or general education requirements of the college or university to which they plan to transfer and should, therefore, consult with the counselors at North Iowa Area Community College to determine these additional requirements.

Those interested in attending the University of Iowa should see a North Iowa Area Community College counselor for specific information.

Mortuary Science

Any person desiring to enter the funeral directing profession shall be required to appear before a member of the Board of Mortuary Science Examiners for a personal interview and registration, prior to entering a College of Mortuary Science, approved by the Iowa State Board of Mortuary Science Examiners.

Recommended courses:

a. Communications. Eight semester hours shall consist of English, Speech, or Writing Communications.

b. Natural Sciences. Nine semester hours shall consist of Chemistry, Biology I and II, Anatomy and Physiology, Histology, and Microbiology.

c. Social Sciences. Nine semester hours shall consist of Psychology or Sociology.

d. Business/Economics. Nine semester hours shall consist of Business Management, Accounting, Business Law, Computer Sciences, or Economics.

e. Philosophy/Humanities. Nine semester hours shall consist of Philosophy, Religion, Art, or Music.

f. Electives. Nineteen semester hours shall consist of student's choice.

For more information contact: Board of Mortuary Science, Iowa Department of Public Health, 321 East 12th Street, Lucas State Office Building, Des Moines, IA 50319-0075.

Music

The following courses may be taken at North Iowa Area Community College to meet the requirements for a degree in music or music education:

Literature	6 s.h.
Foreign Language	0-8 s.h.
Communication Skills I and II	8 s.h.
Theory of Music I, II, III, and IV	16 s.h.
Applied Music	4-8 s.h.
Choir and/or Band	4-8 s.h.
Western Civilization	8 s.h.
Math/Science	8 s.h.
American Government	3 s.h.
Sociology	3 s.h.
Human Growth and Development	3 s.h.
Introduction to Teaching	3 s.h.

Students planning to major in music should consult with counselors and personnel in the Department of Music in preparing schedules of classes. The student should also correspond with the head of the Department of Music of the college to which he/she will transfer to obtain a verification of his/her complete program at North Iowa Area Community College.

Simpson College

Courses which may be taken at NIACC to complete major requirements at Simpson College:

Exploring Music	3 s.h.
Music Theory I	4 s.h.
Music Theory II	4 s.h.
Music Theory III	4 s.h.
Music Theory IV	4 s.h.
Applied Music Piano	1-2 s.h.
Applied Music Voice	1-2 s.h.
Applied Music Instrumental	1-2 s.h.
Concert Chorus	1-4 s.h.
Band	1-4 s.h.
Jazz Band	1-4 s.h.

Nursing

Grand View College

Completion of the A.A. Degree at NIACC will meet most general education requirements; the following course are recommended as electives or general education within one's A.A. Studies:

General Psychology	3 s.h.
Sociology	3 s.h.
Human Growth & Development	3 s.h.
Biology I	4 s.h.
Microbiology	4 s.h.
Nutrition	3 s.h.
Introduction to Statistics	3 s.h.
College Algebra and Trigonometry I	4 s.h.
Fundamentals of Organic Chemistry	3 s.h.
Anatomy and Physiology I and II	8 s.h.

University of Iowa

BACHELOR OF SCIENCE IN NURSING (BSN) DEGREE
(at Iowa City)

A cooperative, articulated curriculum with the University of Iowa College of Nursing. The baccalaureate degree nursing student should take the following courses at NIACC:

Communication Skills I and II	8 s.h.
Principles of Physics or Physical Science*	4 s.h.
Introductory Chemistry or Gen. Chem. Prin*	4 s.h.
Biological Principles	4 s.h.
Psychology	3 s.h.
Anatomy and Physiology I and II	8 s.h.
Microbiology	4 s.h.
Humanities, Fine Arts, Philosophy**	6 s.h.
Western Civilization	4 s.h.
Intro to Statistics**	3 s.h.
Human Growth and Development	3 s.h.
Cultural Anthropology or Cultural Diversity**	3 s.h.
Foreign Language*	0-8 s.h.

*Math, physics, chemistry, and foreign language requirement depend on high school preparation.

**Some course work may be completed after matriculation at the University of Iowa if student is unable to complete as prenursing.

A minimum GPA of 2.50 is required to apply for admission. Admission deadlines are January 15 for summer (R.N. program only), March 1 for fall, and October 1 for spring. Admission is competitive.

BACHELOR OF SCIENCE IN NURSING (BSN) DEGREE
RN TO BSN PROGRESSION PROGRAM
(at NIACC)

The University of Iowa College of Nursing offers its RN-BSN Progression Program at the NIACC campus. Course work can be completed locally. This program is designed for diploma and associate degree registered nurses who desire a BSN Degree.

The associate degree nurse is assumed to have competence in microbiology, anatomy, physiology, nutrition, introductory psychology and sociology, life-span human development and behavior, communication skills, and computer skills, as well as basic nursing competence, all required as part of the Associate Degree Nursing curriculum at NIACC. Prospective students can be assured that they have earned at least half of the 128 semester hours required for the BSN upon graduation from the NIACC ADN Program.

Most students may enroll in supporting and general education courses at NIACC and are strongly encouraged to seek early advising with the RN-BSN Faculty Coordinator. For further information contact the RN-BSN Program office in Iowa City at 1-800-553-4692, ext. 7020, or the RN-BSN Faculty Coordinator located on the NIACC campus at 1-888-466-4222, ext. 4338, or go to www.nursing.uiowa.edu for the College of Nursing website. Choose Academic Programs and Degree Options for information regarding the RN to BSN program.

Occupational Therapy

St. Ambrose University

The following courses may be taken at NIACC. Full-time students will take these courses over a three-semester period, after which they will need to transfer to St. Ambrose.

Biological Principles and Lab	4 s.h.
Introductory Chemistry	
OR	
Principles of Physics and Lab	4 s.h.
College Algebra and Trigonometry or higher	4 s.h.
Communication Skills I OR	4 s.h.
Public Speaking	2 s.h.
General Psychology	3 s.h.
Human Growth and Development	3 s.h.
Abnormal Psychology	3 s.h.
Literature	3 s.h.
Philosophy	3 s.h.
Art, Music, Theater	6 s.h.
American History	3 s.h.
Medical Terminology	1 s.h.
Anatomy and Physiology	8 s.h.
Intro to Sociology	3 s.h.
Intro to Computer/Information Systems	3 s.h.

1. Students must achieve and maintain a minimum 2.8 GPA.
2. Students should apply for admission to St. Ambrose as soon as they begin their third semester at NIACC.
3. As soon as students are enrolled at St. Ambrose, they should apply for Occupational Therapy.
4. Students must be able to document experience in an occupational therapy setting of at least 50 clock hours.
5. There is no guarantee regarding admission.

Optometry

The following courses are recommended for a student interested in optometry:

Communication Skills I and II	8 s.h.
Biology I and II	8 s.h.
Physics	8 s.h.
Inorganic Chemistry	10 s.h.
Psychology	3 s.h.
Humanities Electives	6 s.h.
Social Science Elective	3 s.h.
Organic Chemistry	4-10 s.h.
Microbiology	4 s.h.
Anatomy and Physiology I and II	8 s.h.
Analytic Geometry and Calculus I	4 s.h.

Plus electives to total 60 s.h.
There are additional requirements which vary with each optometry school or college.

Pharmacy

Drake University

DOCTOR OF PHARMACY
Applications for admission to the B.S. in Pharmaceutical Sciences (non-licensure) program will be reviewed on a rolling admission basis. All applicants for admission into the Drake Doctor of Pharmacy degree program are required to submit the Pharmacy Supplement Application Form (PSAF) in addition to the regular application for admission.

Applicants for admission into the pre-professional pharmacy program are required to have a 2.75 minimum cumulative GPA on a 4.0 scale for all course work completed, and will be considered for admission on a rolling basis for the fall term. Due to the sequence of courses in the pharmacy curriculum, transfer students will be considered for admission into the pre-professional program for the spring term on an individual basis.

Applicants for admission into the professional Pharm.D. program are required to have a 2.75 minimum cumulative GPA on a 4.0 scale for all course work completed and an official PCAT test score. They should have completed at least 60 semester hours of course work, including the designated (*) courses below or their equivalent at other institutions, by the beginning of the term they want to enroll in the program. Professional Pharm.D. program applicants must sit for the PCAT no later than January of the year they apply for admission. Interviews for admission to the professional Pharm. D. Program generally begin in the fall of the year prior to desired term of admission; notification of admission begins January 1 and continues until all seats have been filled. Applications submitted after March 1 will be considered on a space-available basis only. Admission to the professional Pharm.D. program in the spring term is not available. Please contact a Drake admission counselor for more detailed information.

The Drake College of Pharmacy and Health Sciences suggests the following curriculum at NIACC.

Communication Skills I	4 s.h.
Speech	2 s.h.
*Chemistry Principles I & II	10 s.h.
*Organic Chemistry I & II	10 s.h.
*Biological Principles I & II	8 s.h.
*Microbiology	4 s.h.
*Analytic Geometry and Calculus I	4 s.h.
*Intro to Statistics	3 s.h.
*Intro to Computers and Information Systems	3 s.h.

*Required for entry into the professional program.

For specific Drake Curriculum (general education) requirements, students should access the Drake Curriculum website at http://www.educ.drake.edu/dc or contact the Office of Admission, 1-800-44-DRAKE, ext. 3181. It is recommended that students planning for transfer to Drake save NIACC course syllabi for in-depth review for Drake Curriculum outcomes fulfillment upon transfer.

University of Iowa

A student may attend North Iowa Area Community College for two years of pre-pharmacy.

Courses which should be taken at North Iowa Area Community College are:

Biology I and II	8 s.h.
Communication Skills I and II	8 s.h.
Chemistry Principles I and II	10 s.h.
Analytic Geometry and Calculus I	4 s.h.
*Principles of Physics	4 s.h.
Organic Chemistry I & II	10 s.h.
Anatomy & Physiology I & II	8 s.h.
Microbiology	4 s.h.
Microeconomics	3 s.h.
Intro to Statistics	3 s.h.
**General Education Electives	12 s.h.

*Physics required for students who haven't taken a full year during high school.

**A minimum of 15 s.h. of general education electives required for admission. Total of 20 s.h. required for graduation. Recommended electives include Computer Science and an Ethics course.

Physical Education

The following courses may be taken at North Iowa Area Community College to meet the requirements for a degree in physical education:

Communication Skills I and II	8 s.h.
Games and Officiating I and II	4 s.h.
Introduction to Physical Education	2 s.h.
Anatomy and Physiology I and II	8 s.h.
First Aid and Personal Safety	1 s.h.
Introduction to Teaching	3 s.h.
Human Growth and Development	3 s.h.
Psychology	3 s.h.
American History or American Government	3 s.h.
Care and Prevention of Athletic Injuries	2 s.h.
Educational Media Techniques	3 s.h.
Health and Nutrition	3 s.h.
Humanities Electives	8 s.h.
Educational Psychology	3 s.h.

Students planning to major in physical education should consult with counselors and personnel in the Department of Physical Education in preparing schedules of classes. The student should also correspond with the head of the Department of Physical Education of the college to which he/she will transfer to obtain a verification of his/her complete program at North Iowa Area Community College.

Iowa State University

The following courses at NIACC will meet the requirements for Exercise and Sport Science programs at Iowa State University administered by the Department of Health and Human Performance. Please see a NIACC counselor for clarification or call an academic advisor at Iowa State University: 515-294-2029.

GENERAL EDUCATION

Anatomy and Physiology	4 s.h.
Intro to Computers and Information Systems (non-teacher ed only)	3 s.h.
Quant. Methods	3 s.h.
General Psychology	3 s.h.
Sociology	3 s.h.
Communication Skills I	4 s.h.
Communication Skills II	4 s.h.

TEACHER LICENSURE

Intro to Teaching	3 s.h.
First Aid and Personal Safety	1 s.h.
Human Growth & Development	3 s.h.
Nutrition	3 s.h.
Educational Psychology	3 s.h.

EXERCISE SCIENCE

Principles of Physics OR Gen. Physics I	4 s.h.
General Chemistry I	4 s.h.

General Chemistry I Lab . . . . . 1 s.h.
Nutrition . . . . . 3 s.h.

ATHLETIC TRAINING
Principles of Physics OR General Physics I . . 4 s.h.
General Chemistry I . . . . . 4 s.h.
General Chemistry I Lab . . . . . 1 s.h.
Nutrition . . . . . 3 s.h.

SPORT MANAGEMENT
Accounting Principles I . . . . . 3 s.h.
Microeconomics . . . . . 3 s.h.
Macroeconomics . . . . . 3 s.h.

Simpson College

Courses which may be taken at NIACC to meet major requirements at Simpson College:
Intro to Physical Education . . . . . 2 s.h.
Care & Prevention of Athletic Injuries . . . . . 2 s.h.
First Aid and Personal Safety . . . . . 1 s.h.
Kinesiology . . . . . 3 s.h.
Games and Officiating I and II . . . . . 6 s.h.
Biology I OR Human Biology OR
Anatomy and Physiology . . . . . 8 s.h.

Upper Iowa University

RESIDENTIAL CAMPUS
Students should consider taking the following courses to meet requirements in the following majors. Completion of the A.A. degree at NIACC will meet the general education requirements.

FITNESS MAJOR
Anatomy and Physiology I . . . . . 4 s.h.
Kinesiology . . . . . 3 s.h.
Physical Fitness I . . . . . 1 s.h.
Physical Fitness Lab . . . . . 1 s.h.
Principals of Management . . . . . 3 s.h.
Nutrition . . . . . 3 s.h.

SPORTS SCIENCE MAJOR
General Chemistry I . . . . . 5 s.h.
General Chemistry II . . . . . 5 s.h.
Nutrition . . . . . 3 s.h.
Anatomy and Physiology I . . . . . 4 s.h.
Kinesiology . . . . . 3 s.h.
General Physics I . . . . . 4 s.h.
Organic Chemistry I . . . . . 5 s.h.
Intro to Statistics. . . . . 3 s.h.

ATHLETIC TRAINING
Nutrition . . . . . 3 s.h.
Anatomy & Physiology I . . . . . 4 s.h.
Kinesiology . . . . . 3 s.h.
General Psychology . . . . . 3 s.h.

Physical Science

Grand View College

Completion of the A.A. degree at NIACC will meet most general education requirements; the following courses are recommended as electives or general education within one's A.A. Studies:
Biology I/II. . . . . 8 s.h.
Chemistry Principles I/II . . . . . 10 s.h.
Organic Chemistry I/II. . . . . 8 s.h.
Quantitative Analysis . . . . . 4 s.h.
General Physics I/II or
College Physics I/II . . . . . .8-10 s.h.
Computer Applications . . . . . 3 s.h.
Differential Equations . . . . . 3 s.h.
Engineering Problems or
Engineering Graphics . . . . . 3 s.h.

Physical Therapy

University of Iowa

Physical Therapy programs are highly selective. The University of Iowa program is a masters degree and first requires completion of a bachelor's degree. Include the following North Iowa Area Community College courses:
Communication Skills I and II . . . . . 8 s.h.
Biology I and II . . . . . 8 s.h.
Chemistry . . . . . 10 s.h.
Physics . . . . . 8 s.h.
Psychology . . . . . 3 s.h.
Algebra and Trigonometry II . . . . . 4 s.h.
Foreign Language . . . . . .0-16 s.h.
Anatomy and Physiology I and II . . . . . 8 s.h.
Intro to Statistics. . . . . 3 s.h.

General education courses to complete the associate in arts degree. Work experience in a physical therapy setting is very important as an admissions criterion.

Physician

University of Iowa

Prior to entrance into medical school, each applicant must:

1. have received the baccalaureate degree; or
2. have completed three years (94 s.h.) of a combined baccalaureate-medicine curriculum which qualifies him/her to receive the baccalaureate degree on completion of the first year in medicine; or
3. have completed three years (94 s.h.) of a baccalaureate program meeting all of the general graduation requirements of the college he/she is attending.

The completion of a four-year baccalaureate degree in a liberal arts college is strongly recommended, and students having a bachelor's degree will be given preference. However, a student may apply for admission to

the College of Medicine upon the completion of 94 semester hours of work in a college of liberal arts with an overall grade point average of 2.5. Approximately two-thirds of these hours may be met by taking the courses listed below at North Iowa Area Community College. The Medical College Admissions Test (MCAT) will need to be taken.

Communication Skills I and II . . . . . 8 s.h.
Chemistry Principles I & II . . . . . 10 s.h.
Organic Chemistry . . . . . 10 s.h.
Precalculus . . . . . 4 s.h.
Physics . . . . . 8 s.h.
Foreign Language . . . . . 0-16 s.h.
Biology I and II . . . . . 8 s.h.

General education to complete associate in arts degree.

Physician Assistant

University of Iowa

Communication Skills I and II . . . . . 8 s.h.
Chemistry Principles I and II . . . . . 10 s.h.
Organic Chemistry . . . . . 10 s.h.
Biology I and II . . . . . 8 s.h.
Precalculus . . . . . 4 s.h.
Physics . . . . . 8 s.h.
Foreign Language . . . . . 0-16 s.h.
Foreign Civilization & Culture . . . . . 3 s.h.
Introduction to Statistics . . . . . 3 s.h.

General education electives to complete associate in arts degree.

In the selection process of physician assistant candidates, work experience in a health care setting is very important as an admissions criterion.

This is a graduate program at Iowa and is highly competitive. See your counselor for more information.

Political Science

Buena Vista University

Courses which may be taken at North Iowa Area Community College to meet specific major requirements at Buena Vista University:

Intro to American Government . . . . . 3 s.h.
American State and Local Government . . . . . 3 s.h.
Social Problems . . . . . 3 s.h.

Complete additional courses to satisfy A.A. degree requirements at North Iowa Area Community College. A second major or minor is required for this degree.

Simpson College

Courses that may be taken at North Iowa Area Community College to complete major requirements:

Intro to American Government . . . . . 3 s.h.
American State and Local Government . . . . . 3 s.h.
International Relations . . . . . 3 s.h.

Psychology

Intermediate Algebra . . . . . 4 s.h.
General Psychology . . . . . 3 s.h.
Child Psychology . . . . . 3 s.h.

Students should correspond with the college or university of their choice to determine if that college requires science and/or foreign language.

Buena Vista University

Courses which may be taken at North Iowa Area Community College to meet specific major requirements at Buena Vista University:

General Psychology . . . . . 3 s.h.
Child Psychology (as an elective) . . . . . 3 s.h.
Intermediate Algebra . . . . . 4 s.h.

Complete additional courses to satisfy A.A. degree requirements at North Iowa Area Community College.

A second major or minor is required for this degree.

Simpson College

Courses which may be taken at North Iowa Area Community College to meet major requirements at Simpson College:

Quantitative Methods OR
Intermediate Algebra . . . . . 3-4 s.h.
General Psychology . . . . . 3 s.h.
Human Growth & Development . . . . . 3 s.h.
Child Psychology (elective) . . . . . 3 s.h.
Biological Principles I and Lab . . . . . 4 s.h.
Communication Skills I and II . . . . . 8 s.h.

Complete additional courses to satisfy A.A. degree.

Upper Iowa University

RESIDENTIAL CAMPUS

Students should consider taking the following courses to meet requirements in the following majors. Completion of the A.A. degree at NI ACC will meet the general education requirements.

General Psychology . . . . . 3 s.h.
Intro to Human Services . . . . . 3 s.h.
Child Psychology . . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.
Intro to Statistics . . . . . 3 s.h.

Public Relations

This major has a wide variety of preparation possibilities and should be discussed with your counselor.

Radiology

(Four-Year Degree)

The requirements may be met by selecting courses from the list outlined below. These courses are offered at North Iowa Area Community College.

Biology I and II . . . . . 8 s.h.
Anatomy and Physiology . . . . . 8 s.h.
Communication Skills I & II . . . . . 8 s.h.
Western Civilization . . . . . 8 s.h.
Algebra and Trigonometry I & II . . . . . 8 s.h.
Philosophy . . . . . 3 s.h.
General Physics . . . . . 8 s.h.
Chemistry . . . . . 8 s.h.
Social Science Electives . . . . . 6 s.h.

Recreation

A recreation major may have several different areas of emphasis. The following courses should be taken at NIACC:

Communication Skills I and II . . . . . 8 s.h.
Games and Officiating I and II . . . . . 4 s.h.
Introduction to Physical Education . . . . . 2 s.h.
Psychology . . . . . 3 s.h.
Human Growth and Development . . . . . 3 s.h.
Essentials of Art . . . . . 3 s.h.
Introduction to Teaching . . . . . 3 s.h.
Health and Nutrition . . . . . 3 s.h.
First Aid and Personal Safety . . . . . 1 s.h.
Care and Prevention of Athletic Injuries . . . . . 2 s.h.
Educational Media Techniques . . . . . 3 s.h.

Rehabilitation Services

Drake University

The National Rehabilitation Institute is housed in the School of Education at Drake University. The program emphasizes administration, providing the knowledge and experiences necessary to function as a community rehabilitation agency manager. The program curriculum focuses on a blend of course work and field experiences. Designated as the Midwest Regional program, Federal grant tuition assistance is available to cover 46 hours of the rehabilitation core curriculum. To qualify, students must gain admission to Drake University and apply to the National Rehabilitation Institute. There is an interview process for the awarding of funds. Students should also plan to file for other types of financial aid.

Recommended courses for students planning for this major include the following NIACC course work:

Communication Skills I . . . . . 4 s.h.
Communication Skills - Speaking . . . . . 2 s.h.
History . . . . . 6 s.h.
Fine Arts Appreciation . . . . . 3 s.h.
Life and Physical Sciences (must include lab) 8 s.h.
Mathematics . . . . . 3-4 s.h.
Values and Ethics . . . . . 3 s.h.
International/Multicultural Awareness . . . . . 3 s.h.
Social Sciences . . . . . 6 s.h.

Many of the courses listed above also fulfill Drake Curriculum requirements. For specific Drake Curriculum (general education) information, students should access the Drake Curriculum website at http://www.educ.drake.edu/dc or contact the Office of Admission, 1-800-44-DRAKE, ext. 3181. It is recommended that students planning for transfer to Drake save NIACC course syllabi for in-depth review for Drake Curriculum outcomes fulfillment upon transfer.

Social Work

General education includes the following courses:

Communication Skills I and II . . . . . 8 s.h.
Sociology . . . . . 3 s.h.
Social Problems . . . . . 3 s.h.
Marriage and Family . . . . . 3 s.h.
Psychology . . . . . 3 s.h.
Natural Science Electives . . . . . 8 s.h.
Humanities Electives . . . . . 6 s.h.
Human Growth and Development . . . . . 3 s.h.
Macroeconomics . . . . . 3 s.h.
Public Speaking . . . . . 2 s.h.
American History . . . . . 6 s.h.

Students should correspond with the college or university of their choice to determine if that college requires science and/or foreign language. Students should also be certain their math background is sufficient for a statistical course.

Wartburg College

Communication Skills I and II . . . . . 8 s.h.
General Psychology . . . . . 3 s.h.
Sociology . . . . . 3 s.h.
Macroeconomics or Microeconomics . . . . . 3 s.h.
Intro to American Government . . . . . 3 s.h.
Western Civilization. . . . . 4-8 s.h.
Biological Prin & Lab . . . . . 4 s.h.
Intermediate Algebra (or higher math) . . . . 3-4 s.h.
Humanities . . . . . 3-6 s.h.

Sport Management

Iowa State University

This program prepares students for a variety of sport specialist positions in professional/college sports organizations, health and sport clubs, community recreation programs, business and non profit agencies such as YWCA/YMCA's. This program is administered through the Department of Health and Human Performance. *(See course recommendations under Physical Education.)*

Theatre

Communication Skills I and II . . . . . 8 s.h.
Introduction to Theatre, Television, and Film 3 s.h.
Introduction to Acting . . . . . 3 s.h.
Stagecraft . . . . . 3 s.h.
Public Speaking . . . . . 2 s.h.
Introduction to Poetry and Drama . . . . . 3 s.h.
Introduction to Short Story and Novel . . . . . 3 s.h.
World Literature I and II . . . . . 6 s.h.
Oral Interpretation of Literature . . . . . 3 s.h.

Simpson College

Courses which may be taken at North Iowa Area Community College to complete major requirements at Simpson College:

Oral Interpretation of Literature . . . . . 3 s.h.
Intro to Theatre/TV/Film . . . . . 3 s.h.
Stagecraft . . . . . 3 s.h.
Intro to Acting . . . . . 3 s.h.

Also required for Theatre Arts with Education Program:

Public Speaking . . . . . 2 s.h.
Group Discussion . . . . . 2 s.h.
Newswriting & Reporting . . . . . 3 s.h.

Veterinary Medicine

Iowa State University

(GPA is a competitive factor for admission.)

Applicants for admission to the College of Veterinary Medicine must have attended a regionally accredited college or university, have completed 40 semester credits prior to the deadline for filing an application for admission, and have completed 60 semester credits prior to the end of the spring term in which the applicant seeks to be admitted.

Credits earned must include the following:

Communication Skills I and II* . . . . . 8 s.h.
Chemistry Principles I and II . . . . . 10 s.h.
Organic Chemistry I and II . . . . . .10 s.h.
General Physics I and II . . . . . 8 s.h.
Biology I and II . . . . . 8 s.h.
Genetics . . . . . 4 s.h.
Anatomy and Physiology . . . . . 4 s.h.
Humanities and/or Social Sciences . . . . . 9 s.h.

* Must take both courses for 4 semester hour credits to meet the Public Speaking requirement.

Visual Arts

Grand View College

Completion of the A.A. Degree at NIACC will meet most general education requirements; the following courses are recommended as electives or general education within one's A.A. Studies:

Art History I/II . . . . . 6 s.h.
Drawing . . . . . 3 s.h.
2-D Design . . . . . 3 s.h.
Encounters in Humanities . . . . . 2 s.h.
Essentials of Art . . . . . 3 s.h.
Ceramics . . . . . 3 s.h.
Graphic Design . . . . . 3 s.h.
Painting I/II . . . . . 6 s.h.
Digital Illustration . . . . . 3 s.h.

Online Associate Degree Courses Through NIACC

See the listing below and contact the Registrar at 1-888-466-4222, ext. 4205, or (641)422-4205.

Degree Requirement	*Semester Hours*
Communications	**8 s.h.**
Communication Skills I (30:101)	*3 s.h.*
Communication Skills II (30:102)	*3 s.h.*
Public Speaking (85:101)	*2 s.h.*
Humanities	**8 s.h.**
Art History I (10:102)	*3 s.h.*
Art History II (10:103)	*3 s.h.*
American History to 1877 (80:140)	*3 s.h.*
American History 1877 to Present (80:141)	*3 s.h.*
Natural Sciences	**8 s.h.**
Math for Decision Making (40:121)	*3 s.h.*
Introduction to Statistics (40:140)	*3 s.h.*
Biological Principles (70:101)	*3 s.h.*
Introduction to Chemistry (70:140)	*4 s.h.*
Social Sciences	**8 s.h.**
*General Psychology (80:101)**	*3 s.h.*
*Macroeconomics (80:133)**	*3 s.h.*
*Microeconomics (80:134)**	*3 s.h.*
Personal Finance (80:135)	*3 s.h.*
*Geography of the Non-Western World (80:152)**	*3 s.h.*
*Human Growth & Development (80:230)**	*3 s.h.*
Distributed Requirement *Choose from courses above (under Communications, Humanities, Natural Sciences, and Social Sciences)*	**8 s.h.**
Electives	**20 s.h.**
*Keyboarding Level I (15:112)**	*1 s.h.*
*Keyboarding Level II (15:113)**	*1 s.h.*
*Computer Literacy (15:114)**	*1 s.h.*
Introduction to Computers and Information Systems (15:140)	*3 s.h.*
Accounting Principles I (15:150)	*3 s.h.*
Accounting Principles II (15:151)	*3 s.h.*
Introduction to Entrepreneurship (15:171)	*3 s.h.*
Introduction to E-Commerce (15:191)	*3 s.h.*
Visual Communication (15:201)	*3 s.h.*

Word Processing (15:211)	*2 s.h.*
Business Communication (15:212)	*3 s.h.*
Microsoft Access (15:225)	*1 s.h.*
Microsoft PowerPoint (15:226)	*1 s.h.*
Degree Requirement	*Semester Hours*
Microsoft Outlook (15:227)	*1 s.h.*
Human Relations (15:241)	*3 s.h.*
Medical Terminology I (15:251)	*3 s.h.*
Medical Terminology II (15:252)	*3 s.h.*
Employment Strategies (89:150)	*1 s.h.*
Career Decision Making (89:152)	*2 s.h.*

* Open enrollment courses. All others start and end on the regular semester dates.

GENERAL EDUCATION AND COURSE CATEGORIES

North Iowa Area Community College considers education to be the foundation of a democratic society. At the core of the educational experience is general education, an ongoing endeavor that engages students in acquiring the knowledge and tools necessary to understand their environment and contribute to their communities. General education provides the diverse experiences in learning that teach generalized skills in communication, critical analysis, research, human relations, and technology and survey subject matter to allow for applications of this learning in the classroom and community.

In response to a renewed emphasis placed on general education by The High Learning Commission of the North Central Association regional accrediting body, the College, through its Institutional Effectiveness Committee, reexamined the courses in its general education distribution requirements. As a result of this study, the College has determined that its general education course work, taken as a whole, will aid the development of research, critical thinking, communication, global awareness, interpersonal, aesthetic, technological, and quantitative skills in its graduates. In order for a class to be included in the following distribution requirements, it must incorporate at least six of the eight general education skills identified by the Institutional Effectiveness Committee. *To measure the effectiveness of its general education program, NIACC will require all students to take the Academic Profile examination as a graduation requirement.*

Each of NIACC's degree programs provides varying levels of general education skill development through their distribution requirements:

* To earn an **Associate in Arts** degree, a student must complete a minimum of 8 semester hours (s.h.) of credit in each of the communication, humanities, social science, and natural science distribution categories listed below plus an additional 8 s.h. of credit selected from any of the aforementioned categories for a total minimum of 40 s.h. of general education credit within the degree program. Within the natural science category, a student must select at least one mathematics and one science course.
* To earn an **Associate in Science** degree, a student must complete a minimum general education core of 37 s.h. distributed in the following fashion: communications (8 s.h.); humanities and/or social science (9 s.h.); and natural science (20 s.h.). Within the natural science category, a student must select at least one mathematics and one science course.
* To earn an **Associate in Science in Business** degree, a student must complete a minimum general education core of 20 s.h. distributed in the following fashion; communications (8 s.h.); humanities and/or social science (9 s.h.); and natural science (3 s.h.).
* General education requirements for the **Associate in Applied Science** degree vary according to the major selected. Please consult with an advisor or a faculty member in the major field for further information.

Listed below are the general education course categories (communications, humanities, natural science, and social science), as well as those courses listed under the business and elective categories.

COMMUNICATIONS

30:101	Communication Skills I	4 s.h.
30:101C	Communication Skills I	3 s.h.
30:102	Communication Skills II	4 s.h.
30:102C	Communication Skills II	3 s.h.
30:110	Oral Interpretation of Literature	3 s.h.
85:101	Public Speaking	2 s.h.
85:105	Group Discussion	2 s.h.

HUMANITIES

10:100	Encounters in Humanities	2 s.h.
10:101	Essentials of Art	3 s.h.
10:102	Art History I	3 s.h.
10:103	Art History II	3 s.h.
10:112	Art in the Elementary School	3 s.h.
10:120	Drawing	3 s.h.
10:130	Ceramics	3 s.h.
10:150	Creative Photography	3 s.h.
10:151	Intermediate Creative Photography	3 s.h.
10:201	2-D Design	3 s.h.
10:202	Graphic Design	3 s.h.
10:220	Digital Illustration	3 s.h.
30:110	Oral Interpretation of Literature	3 s.h.
30:111	Introduction to Poetry/Drama	3 s.h.
30:112	Introduction to Short Story/Novel	3 s.h.
30:121	Introduction to Journalism	3 s.h.
30:122	News Writing and Reporting	3 s.h.
30:201	World Literature I	3 s.h.
30:202	World Literature II	3 s.h.
30:203	Minority Literature: African/American	3 s.h.
30:204	Minority Literature: American Indian	3 s.h.
30:210	Children's Literature	3 s.h.
35:110	Beginning Spanish I	4 s.h.
35:111	Beginning Spanish II	4 s.h.
35:211	Intermediate Spanish I	4 s.h.
35:212	Intermediate Spanish II	4 s.h.
35:260	Advanced Spanish I	1-3 s.h.
35:261	Advanced Spanish II	1-3 s.h.
50:113	Exploring Music	3 s.h.
50:121	Music Theory I	4 s.h.
50:122	Music Theory II	4 s.h.
50:123	Music Theory III	4 s.h.
50:124	Music Theory IV	4 s.h.

50:150 Concert Chorus ..... 1 s.h.
50:151 Voice Ensemble (NIACC Singers)..... 1 s.h.
50:152 Concert Band ..... 1 s.h.
50:153 Orchestra..... 1 s.h.
50:154 NIACC Jazz Ensemble ..... 1 s.h.
50:155 Chamber Ensemble ..... 1 s.h.
50:156 Applied Music Vocal ..... 1-2 s.h.
50:157 Applied Piano ..... 1-2 s.h.
50:158 Applied Music Flute..... 1-2 s.h.
50:159 Applied Music Oboe ..... 1-2 s.h.
50:160 Applied Music Clarinet ..... 1-2 s.h.
50:161 Applied Music Bassoon..... 1-2 s.h.
50:162 Applied Music Saxophone..... 1-2 s.h.
50:163 Applied Music Trumpet ..... 1-2 s.h.
50:164 Applied Music French Horn..... 1-2 s.h.
50:165 Applied Music Trombone ..... 1-2 s.h.
50:166 Applied Music Euphonium..... 1-2 s.h.
50:167 Applied Music Tuba..... 1-2 s.h.
50:168 Applied Music Percussion ..... 1-2 s.h.
50:169 Applied Music Drum Set..... 1-2 s.h.
50:170 Applied Music Guitar ..... 1-2 s.h.
50:195 Beginning Piano..... 1 s.h.
80:140 American History to 1877 ..... 3 s.h.
80:141 American History 1877 to Present..... 3 s.h.
80:201 Western Civilization to 1648..... 4 s.h.
80:202 Western Civilization from 1648 to Present ..... 4 s.h.
80:210 Introduction to Philosophy..... 3 s.h.
80:212 Ethics..... 3 s.h.
85:150 Introduction to Theatre, TV, and Film ..... 3 s.h.

NATURAL SCIENCES

40:121 Mathematics for Decision Making..... 3 s.h.
40:122 Mathematics for Elementary Teachers... 3 s.h.
40:125 Quantitative Methods ..... 3 s.h.
40:140 Intro to Statistics..... 3 s.h.
40:151 College Algebra and Trigonometry I..... 4 s.h.
40:152 College Algebra and Trigonometry II ..... 4 s.h.
40:161 Precalculus ..... 4 s.h.
40:240 Calculus for Business ..... 3 s.h.
40:251 Analytic Geometry and Calculus I ..... 4 s.h.
40:252 Analytic Geometry and Calculus II ..... 4 s.h.
40:253 Analytic Geometry and Calculus III ..... 4 s.h.
40:261 Differential Equations ..... 3 s.h.
70:100 Introduction to Laboratory Science..... 2 s.h.
70:101 Biological Principles ..... 3 s.h.
70:102L Biological Principles Lab I ..... 1 s.h.
70:104 Environmental Science..... 3 s.h.
70:105 Biology I..... 4 s.h.
70:108 Biology II..... 4 s.h.
70:109 Microbiology ..... 4 s.h.
70:110 Health and Nutrition ..... 3 s.h.
70:111 Human Biology ..... 4 s.h.
70:114 Intro to Physical Science ..... 4 s.h.
70:122 Principles of Physics ..... 4 s.h.
70:135 General Chemistry I ..... 5 s.h.
70:136 General Chemistry II ..... 5 s.h.
70:137 Chemistry Principles I..... 5 s.h.
70:138 Chemistry Principles II..... 5 s.h.
70:140 Introductory Chemistry ..... 4 s.h.
70:149 Kinesiology ..... 3 s.h.
70:161 Genetics ..... 4 s.h.
70:182 Astronomy ..... 3 s.h.
70:200 Nutrition ..... 3 s.h.
70:249 Urinalysis I..... 3 s.h.
70:250 Anatomy and Physiology I..... 4 s.h.
70:251 Anatomy and Physiology II..... 4 s.h.
70:260 Quantitative Analysis ..... 4 s.h.
70:272 Fundamentals of Organic Chemistry..... 3 s.h.
70:273 Organic Chemistry ..... 4 s.h.
70:274 Organic Chemistry I..... 5 s.h.
70:275 Organic Chemistry II..... 5 s.h.
70:280 General Physics I ..... 4 s.h.
70:281 General Physics II ..... 4 s.h.
70:282 College Physics I..... 5 s.h.
70:283 College Physics II ..... 5 s.h.

SOCIAL SCIENCES

80:101 General Psychology ..... 3 s.h.
80:103 Educational Psychology ..... 3 s.h.
80:104 Child Psychology ..... 3 s.h.
80:110 Sociology ..... 3 s.h.
80:111 Social Problems ..... 3 s.h.
80:112 Marriage and Family..... 3 s.h.
80:120 Intro to American Government ..... 3 s.h.
80:121 American State & Local Govt ..... 3 s.h.
80:122 International Relations..... 3 s.h.
80:133 Macroeconomics ..... 3 s.h.
80:134 Microeconomics ..... 3 s.h.
80:135 Personal Finance ..... 3 s.h.
80:150 Introduction to Physical Geography..... 3 s.h.
80:151 Regional Geography of the Developed World ..... 3 s.h.
80:152 Regional Geography of the Non Western World ..... 3 s.h.
80:160 Cultural Anthropology ..... 3 s.h.
80:230 Human Growth and Development..... 3 s.h.

BUSINESS

15:101 Intro to Business..... 3 s.h.
15:107 Keyboarding for Office Technology..... 3 s.h.
15:109 Introduction to Accounting..... 3 s.h.
15:110 Electronic Calculators..... 1 s.h.
15:112 Keyboarding Level I..... 1 s.h.
15:113 Keyboarding Level II..... 1 s.h.
15:114 Computer Literacy..... 1 s.h.
15:118 Accounting Procedures ..... 3 s.h.
15:119 Accounting Applications ..... 5 s.h.
15:120 Business Law I ..... 3 s.h.
15:121 Business Law II ..... 3 s.h.
15:122 Legal Office Procedures..... 5 s.h.
15:126 Introduction to Sport Management..... 3 s.h.
15:127 Current Issues in Sport..... 3 s.h.
15:128 Internship in Sport Management ..... 1-3 s.h.
15:134 Computer Applications ..... 3 s.h.
15:136 Advanced Document Processing ..... 3 s.h.
15:140 Introduction to Computers and Information Systems..... 3 s.h.
15:141 MIS I..... 3 s.h.
15:142 Principles of Management..... 3 s.h.
15:144 Principles of Supervision ..... 3 s.h.

15:149 Managing Human Resources ..... 3 s.h.
15:150 Accounting Principles I ..... 3 s.h.
15:151 Accounting Principles II ..... 3 s.h.
15:155 Payroll Accounting ..... 3 s.h.
15:156 Networking I ..... 4 s.h.
15:157 Networking II ..... 4 s.h.
15:158 Networking III ..... 4 s.h.
15:159 Networking IV ..... 4 s.h.
15:160 Computer Accounting ..... 3 s.h.
15:161 Operating Systems I ..... 3 s.h.
15:163 Network Operating Systems ..... 4 s.h.
15:164 Groupware Applications I ..... 4 s.h.
15:165 Groupware Applications II ..... 4 s.h.
15:166 Inter/Intranet Application Management .. 4 s.h.
15:167 Network Security ..... 3 s.h.
15:168 Introduction to Programming ..... 4 s.h.
15:169 Media Experience ..... 3 s.h.
15:170 Principles of Banking ..... 3 s.h.
15:171 Introduction to Entrepreneurship ..... 3 s.h.
15:172 Managing the Entrepreneurial Venture .. 3 s.h.
15:173 Seminar in Entrepreneurship ..... 3 s.h.
15:174 Database Management ..... 3 s.h.
15:175 Electronic Spreadsheets ..... 3 s.h.
15:176 Advanced Desktop Applications ..... 3 s.h.
15:177 Operating Systems II ..... 3 s.h.
15:178 Hardware Service and Support ..... 4 s.h.
15:179 Novell Administration ..... 4 s.h.
15:186 Internet Programming I ..... 3 s.h.
15:187 Internet Programming II ..... 3 s.h.
15:188 Web Server Development ..... 4 s.h.
15:190 General Insurance ..... 3 s.h.
15:191 Introduction to E-Commerce ..... 3 s.h.
15:194 E-Commerce Cases ..... 4 s.h.
15:195 Property/Casualty Insurance ..... 3 s.h.
15:196 Structure and Design ..... 3 s.h.
15:197 Internet Law ..... 3 s.h.
15:199 Web Application Development ..... 3 s.h.
15:200 Life, Health & Disability Insurance ..... 3 s.h.
15:201 Visual Communication ..... 3 s.h.
15:202 Web Design ..... 3 s.h.
15:203 Server Side Scripting ..... 4 s.h.
15:204 Java ..... 4 s.h.
15:207 60-Hour Real Estate Prelicense ..... 3 s.h.
15:210 Business Statistics ..... 3 s.h.
15:211 Word Processing ..... 2 s.h.
15:212 Business Communication ..... 3 s.h.
15:218 Professional Office Procedures ..... 4 s.h.
15:221 Marketing ..... 3 s.h.
15:222 Principles of Advertising ..... 3 s.h.
15:223 Principles of Selling ..... 3 s.h.
15:225 Microsoft Access ..... 1 s.h.
15:226 Microsoft PowerPoint ..... 1 s.h.
15:227 Microsoft Outlook ..... 1 s.h.
15:228 Software Integration ..... 1 s.h.
15:230 Money and Banking ..... 3 s.h.
15:241 Human Relations ..... 3 s.h.
15:249 Medical Transcription I ..... 3 s.h.
15:250 Basic Medical Insurance & Coding ..... 2 s.h.
15:251 Medical Terminology I ..... 3 s.h.
15:252 Medical Terminology II ..... 3 s.h.
15:256 Medical Transcription II ..... 3 s.h.
15:259 Medical Office Procedures ..... 3 s.h.
15:265 Medical Transcription III ..... 3 s.h.
15:277 Network Routing ..... 5 s.h.
15:278 Network Remote Access ..... 5 s.h.
15:280 On-the-Job Training ..... 3 s.h.
15:285 Multi-Layer Switching ..... 5 s.h.
15:286 Network Support ..... 5 s.h.
15:287 Emerging Remote Access Tech ..... 3 s.h.
15:288 Network Design I ..... 3 s.h.
15:289 Network Design II ..... 4 s.h.
15:290 Fundamentals of Project Management .. 4 s.h.
15:299A Special Problems in Business ..... 1 s.h.
15:299B Special Problems in Business ..... 2 s.h.
15:299C Special Problems in Business ..... 3 s.h.

ELECTIVES

10:210 Painting I ..... 3 s.h.
10:211 Painting II ..... 3 s.h.
20:101 Intro to Teaching ..... 3 s.h.
20:110 Educational Measurement and Eval ..... 2 s.h.
20:120 Including Exceptional Students ..... 3 s.h.
20:195 Ed Media & Classroom Comp Tech ..... 3 s.h.
25:110 Orientation to Engineering ..... 0 s.h.
25:111 Engineering Problems with FORTRAN .. 3 s.h.
25:112 Engineering Graphics and Design ..... 3 s.h.
25:231 Statics of Engineering ..... 3 s.h.
25:241 Dynamics ..... 3 s.h.
25:251 Mechanics of Materials ..... 3 s.h.
30:113 LOGOS ..... 1 s.h.
30:120 College Reading Skills ..... 3 s.h.
30:205 Creative Writing ..... 3 s.h.
40:120 Intermediate Algebra ..... 4 s.h.
50:120 Intro Music Theory ..... 2 s.h.
60:107 Bowling ..... 1 s.h.
60:108 Aerobics/Tae-Bo ..... 1 s.h.
60:112 Scuba ..... 1 s.h.
60:113 Physical Fitness ..... 1 s.h.
60:114 Physical Fitness Lab ..... 1 s.h.
60:115 Games and Officiating I ..... 2 s.h.
60:116 Games and Officiating II ..... 2 s.h.
60:117 Intro to Physical Education ..... 2 s.h.
60:118 Care and Prevention of Athletic Injuries ..... 2 s.h.
60:120 Baseball (Intercollegiate) ..... 1 s.h.
60:121 Basketball (Intercollegiate) ..... 1 s.h.
60:122 Football (Intercollegiate) ..... 1 s.h.
60:123 Golf (Intercollegiate) ..... 1 s.h.
60:127 Softball (Intercollegiate) ..... 1 s.h.
60:128 Volleyball (Intercollegiate) ..... 1 s.h.
60:129 Soccer ..... 1 s.h.
60:150 Theory, Ethics, and Professional Responsibilities of Coaching Interscholastic Athletics ..... 1 s.h.
60:152 Intro to Anatomy and Physiology for Coaching ..... 1 s.h.
60:153 Human Development in Sports ..... 1 s.h.
60:175 Rape Education and Self Defense ..... 2 s.h.
60:232 First Aid and Personal Safety ..... 1 s.h.
70:113 Fire Behavior and Investigation ..... 4 s.h.
70:112 Animal Science I ..... 3 s.h.
70:115 Fire Protection Technology ..... 4 s.h.

70:116	Hazardous Materials Technician	3 s.h.
70:117	The Incident Command System	1 s.h.
70:119	Fire Instructor I	2 s.h.
70:212	Animal Science II	3 s.h.
80:125	Student Senate	1 s.h.
80:127	Leadership Development Seminar	2 s.h.
80:114	Intro to Human Services	3 s.h.
80:144	American Indian History	3 s.h.
80:190	Criminal Law I	3 s.h.
80:191	Criminal Law II	3 s.h.
80:192	Patrol Procedures	3 s.h.
80:290	Criminal Evidence	3 s.h.
80:291	Administration of Justice	3 s.h.
80:292	Criminal Investigation	3 s.h.
85:160	Stagecraft	3 s.h.
85:170	Intro to Acting	3 s.h.
89:100	Cooperative Work Experience	1-5 s.h.
89:120	Individualized Educational Planning and Assessment	1 s.h.
89:150	Employment Strategies	1 s.h.
89:151	Academic Success Seminar	2 s.h.
89:152	Career Decision Making	2 s.h.
89:153	ACE-Action for College Education	1 s.h.
89:155	Financial Management/Insurance Internship	3 s.h.
89:163	Professions in Health	2 s.h.
89:164	Nurse Aide Theory	2 s.h.
89:165	Nurse Aide Clinical	1 s.h.
89:170	First Responder	2 s.h.
89:171	EMT Paramedic: Part I	6 s.h.
89:172	EMT Paramedic: Part II	7 s.h.
89:173	EMT Paramedic: Part III	3 s.h.
89:174	EMT Paramedic: Part IV	3 s.h.
89:175	EMT-I	4 s.h.
89:195	EMT B: Part I	4 s.h.
89:196	EMT B: Part II	2 s.h.

All special problems courses, unless otherwise indicated, are elect`1ive courses.

Quotable Quote:

The trouble with not having a goal is that you can spend your life running up and down the field and never scoring.

-Bill Copeland

COURSE DESCRIPTIONS—COLLEGE TRANSFER PROGRAMS

Categories:

10. . . . . Art
15 . . . . . Business
20 . . . . . .Education
25 . . . . . .Engineering
30. . . . . English
35. . . . . .Foreign Languages
40 . . . . . .Math
50 . . . . . Music
60. . . . . .Physical Education
70. . . . . Natural Sciences
80. . . . . .Social Sciences
85 . . . . . Speech & Theatre
89. . . . . Experiential Learning, Electives, EMT, Nurse Aide, Study Abroad, and Enrich Program

*** Special Problems credit can not be used to fulfill general education core requirements of degree.**

The pair of numbers in parentheses at the end of each course description refers to lecture hours and lab hours respectively. All courses are graded on a quality point basis unless designated as pass/no pass.

10 Art

10:100 Encounters in Humanities (2 s.h.) This course is designed to introduce students to the world of humanities; describe the humanities genres and disciplines; provide a systematic method of assessing humanities artifacts; present opportunities to assess humanities artifacts; define methods of participating in the humanities. Four humanities genres are represented with their respective disciplines. (15-30)

10:101 Essentials of Art (3 s.h.) An introductory course designed to give a better understanding of art as an important force in present-day living. Aims to develop an appreciation of art and creative thinking through lectures, readings, and visual aids. Experimentation with a variety of tools, techniques, and materials is a meaningful part of the course. Recommended for nonart majors. Entry-level course. (45-0)

10:102 Art History I (3 s.h.) The study of the development of the visual arts of western civilization including painting, sculpture, architecture, and crafts from prehistoric origins through Gothic. (45-0)

10:103 Art History II (3 s.h.) The study of the development of the visual arts of western civilization including painting, sculpture, architecture, crafts, and photography from the Renaissance through the twentieth century. (45-0)

10:112 Art in the Elementary School (3 s.h.) Prerequisite: 10:101, Essentials of Art, or permission of instructor to remove prerequisite. This course is designed for elementary education majors or those who are planning to work with children pre-K to grade 6. Focuses on instructional planning for art studio and response activities with emphasis on interdisciplinary and multicultural approaches. Components are artistic development of children, peer teaching, field observation, and foundations of art education. (45-0)

10:120 Drawing (3 s.h.) The development of visual perception in objective and subjective representation. Study of line, form, texture, and value in a variety of media stressing an individual's creative development. Entry-level course. (20-50)

10:130 Ceramics (3 s.h.) Prerequisite: 10:201, Two-Dimensional Design; 10:120, Drawing; or 10:101, Essentials of Art. An introductory course involving hand-building, wheel-throwing, glazing, and firing. Slides, lectures, and demonstrations. Ceramics facilities are located in the MacNider Museum, Mason City. (20-50)

10:150 Creative Photography (3 s.h.) An investigation into the relationship of basic photographic techniques to design, perception, and aesthetics. Each student is encouraged to cultivate his or her own visual vocabulary while working on photographic projects. (20-50)

10:151 Intermediate Photography (3 s.h.) Prerequisite: 10:150, Creative Photography. Emphasis on exploring photographic materials in the development of a personal vision. Technical subject covered: lighting, advanced printing, and camera techniques. Only offered spring semesters. (20-50)

10:201 Two-Dimensional Design (3 s.h.) Students/artists explore the process of visual problem solving through participation in class critiques of individual projects. Perception and structure: exploring visual order emphasizing two-dimensional concepts. (20-50)

10:202 Graphic Design (3 s.h.) Prerequisite: 10:201, Two-Dimensional Design. Creative problem solving through the exploration of aesthetic and technical aspects of graphic design using computer-aided design software. (20-50)

10:210 Painting I (3 s.h.) Prerequisite: 10:201, Two-Dimensional Design; 10:120, Drawing; or 10:101, Essentials of Art. Beginning course planned to familiarize the student with the basic materials and tools of painting, the elements of pictorial organization, and the individual's creative development. Each student is encouraged to cultivate his or her own visual vocabulary. (45-0)

10:211 Painting II (3 s.h.) Prerequisite/Corequisite: 10:210, Painting I. Continuation of 10:210. Independent research, reading, and personal exploration of media and techniques. (45-0)

10:220 Digital Illustration (3 s.h.) Prerequisite: 10:201, Two-Dimensional Design. Recommended: 10:150, Creative Photography, or 10:202, Graphic Design. Creation and manipulation of digital imagery is explored in the context of

creative expression. User interactivity, animation, full-color printing, and computer art theories are covered. The student completes visual projects with instructor guidance. (30-30)

10:299A Special Problems in Art (1 s.h.) A course designed jointly by the student and the instructor to investigate a problem in art. Disciplined, advanced art students can select an area for research. With the instructor's approval and the consent of the Division Chair and Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. It is recommended that all other art courses available be completed before taking Special Problems. Course can be repeated for credit. (15-0)

10:299B Special Problems in Art* (2 s.h.) Same as 10:299A. (30-0)

10:299C Special Problems in Art* (3 s.h.) Same as 10:299A. (45-0)

15 Business

15:101 Introduction to Business (3 s.h.) An overview of the phases and functions of the business enterprise. Units of instruction include the organization, financing, production, and contemporary issues in business. The course provides an awareness and understanding of the complexities of the business world. (45-0)

15:107 Keyboarding for Office Technology (3 s.h.) Prerequisite: 15:112, Keyboarding Level I, and/or 15:113, Keyboarding Level II, OR keyboarding skill of 30 wam (words a minute) with 3 or less errors on a 3-minute timed writing. This course covers the continued development of speed and accuracy on the alphabetic, numeric, and symbol keys. Students develop skills in formatting, producing, and proofreading the following documents: memos, letters, envelopes, tables, reports, and other miscellaneous business documents. (30-30)

15:109 Introduction to Accounting (3 s.h.) A basic understanding of the process of collecting and using financial information in business. (45-0)

15:110 Electronic Calculators (1 s.h.) [Structured or Open Entry/Open Exit] A study of the 10-key, electronic calculator. Applied business problems on the calculator. This course has been designated as a pass/no pass course. (5-20)

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Open Entry/Open Exit

15:112 Keyboarding Level I (1 s.h.) [Open Entry/Open Exit] Prerequisite: None. This course covers the development of keyboarding techniques using the touch method on the computer to learn/review the alphabetic keys. The keyboarding goal is a minimum rate of 20 words a minute with 3 or less errors. Students with little or no keyboarding skill would begin at this level. This course has been designated as a pass/no pass course. (0-30)

15:113 Keyboarding Level II (1 s.h.) [Open Entry/Open Exit] Prerequisite: Keyboarding Level I OR ability to keyboard at 20 words a minute. This course covers the development of the touch method on the computer keyboard to learn/review the alphabetic, numeric, and symbol keys. The keyboarding goal is a minimum rate of 30 words a minute with 3 or less errors. This course has been designated as a pass/no pass course. (0-30)

15:114 Computer Literacy (1 s.h.) [Open Entry/Open Exit] Prerequisite: None. Emphasis on using the computer as a tool to create personal and business documents. Introductory windows, word processing, spreadsheet, presentation, database, and Internet units give students an opportunity to view software capabilities and use some of the features. Students with little or no computer background are encouraged to take this course. This course has been designated as a pass/no pass course. (0-30)

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15:118 Accounting Procedures (3 s.h.) An introductory course using a procedural approach applying the principles of debit and credit, recording of data in various journals, posting to the ledgers, the worksheet, financial statements, adjusting and closing entries, depreciation and inventory methods, plant assets, deferrals and accruals. (45-0)

15:119 Accounting Applications (5 s.h.) Prerequisite: 15:118 Accounting Procedures or 15:150 Accounting Principles with a grade of *"C"* or above. A continuation of Accounting Procedures including voucher system, partnerships, and corporations. Includes completion of an accounting simulation project. (75-0)

15:120 Business Law I (3 s.h.) Law as applied to business transactions and business relationships. An introduction to jurisprudence and the courts, contracts, commercial paper, sales, and security agreements. (45-0)

15:121 Business Law II (3 s.h.) Prerequisite: 15:120, Business Law I recommended. A continuation of 15:120. Agency, corporations, partnerships, bailments, real property, wills, trusts, insurance, bankruptcy, and government regulation of business. Some information on international law and liability of professionals. (45-0)

15:122 Legal Office Procedures (5 s.h.) Prerequisite: 15:211, Word Processing, and 15:212, Business Communication. Management of a lawyer's office that includes topics covering general legal documents, personal and real property, business organizations and meetings, bankruptcies, wills and estates, civil cases, and family law. Includes using a word processor, developing transcription skills, using the Internet to access information, filing, handling telephone services, discussing professionalism, applying grammar rules, and taking care of general office administration. Students are expected to spend time outside of class working in the computer lab. (60-30)

15:126 Introduction to Sport Management (3 s.h.) For individuals entering into the sport and physical education profession, it is critical to understand the theory and practice of ethical management principles in sport/fitness organizations. Administrators need to understand marketing, financial and legal aspects regarding the management of facilities, events, and organizations. These principles are applied to organizations within interscholastic, intercollegiate, international and professional sport along with the health/fitness and community recreation industries. (45-0)

15:127 Current Issues in Sport (3 s.h.) Prerequisite: 15:126, Introduction to Sport Management. Sport, health/fitness, and recreation organizations have been facing many changes in recent years. These changes have exposed many problems that these organizations must solve in order to ensure future success. This class is designed to expose students to these issues in order to prepare them for management careers in the sport, health/fitness, and recreation fields. (45-0)

15:128 Internship in Sport Management (1-3 s.h.) Prerequisite: Recommended 15:126, Introduction to Sport Management, or permission of instructor. This course is repeatable for up to six credits. For individuals entering into the sport and physical education profession, it is critical to gain practical experience in the field. Internships in sport management are designed to give the student an inside look at the day-to-day operation of businesses in the sport industry. They are also designed to give each student work experience within the chosen industry. (15-165)

15:134 Computer Applications (3 s.h.) Emphasis on business applications of computer software. Students do business problems using word processing, electronic spreadsheet, and database management software. Students are also exposed to Windows operating systems, presentation software, and the Internet. (30-30)

15:136 Advanced Document Processing (3 s.h.) Prerequisites: 15:134, Computer Applications, and 15:211, Word Processing. Students will learn intermediate to advanced functions of Microsoft Word including customizing templates, recording macros, creating on-screen forms, managing long documents, creating hyperlinks, and publishing on the World Wide Web. Upon completion of the course, the students may be prepared to take the MOUS (Microsoft Office User Specialist) expert exam for Microsoft Word 2000. (30-30)

15:140 Introduction to Computers and Information Systems (3 s.h.) Emphasis on computer literacy and business applications of computer software. Students do business problems using electronic spreadsheets, word processing software, database management software, and presentation software. Students also are exposed to web use, file management, and simple web page development. (45-0)

15:141 Management Information Systems I (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, or permission of the Instructor. The primary goal of MIS I is to prepare students to be productive participants in an information society. The course is designed to develop a broad understanding of business information systems, various ways to discern information from an information system, and look at ways to distribute this information. The student will also learn the basic principles and techniques for developing simple computer-based information systems for managerial decision support systems through an extensive group project component of the course. (45-0)

15:142 Principles of Management (3 s.h.) 15:101, Introduction to Business, is recommended. Provides students with a general introductory management learning experience. Role of management in today's business environment; management's influence on employee productivity, employee satisfaction and organizational effectiveness; major control devices of management. (45-0)

15:144 Principles of Supervision (3 s.h.) This course is designed for individuals who hold, or who will hold, supervisory positions. The course involves the study of the major managerial functions (planning, organizing, staffing, directing, and controlling) and is augmented by other pervasive areas of supervision such as communication, motivation, decision making, and human relations. (45-0)

15:149 Managing Human Resources (3 s.h.) Course describes the transition from personnel management to human resources management. The focus is on the systematic process of recruitment, selection, developing, and appraising employees. (45-0)

15:150 Accounting Principles I (3 s.h.) An introductory accounting course: analyzing transactions, matching principle, adjusting and closing entries, financial statements, receivables, inventories, fixed assets and intangible assets, current liabilities, corporations (capital stock transactions, dividends, income and taxes, stockholder's equity, investment in stocks), bonds payable, investment in bonds. (45-0)

15:151 Accounting Principles II (3 s.h.) Prerequisite: 15:150, Accounting Principles I, or equivalent. Course covers Statement of Cash Flows, financial statement analysis, job order and process cost systems, cost behavior, budgeting, standard costing, differential analysis and product pricing, capital investment analysis, activity-based costing, and just-in-time manufacturing. Emphasis is on management's use of accounting information. (45-0)

15:155 Payroll Accounting (3 s.h.) Prerequisite: 15:109 Introduction to Accounting or 15:118 Accounting Procedures or 15:150 Accounting Principles I with a grade of "C" or above. A study of basic business taxes. Emphasis

on payroll taxes including social security taxes, income taxes, and unemployment taxes; completion of quarterly and annual reports and a payroll simulation project. (45-0)

15:156 Networking I (4 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. This course provides an overview of networking, including such topics as networking advantages, OSI layers, addressing and routing protocols, and LAN design, topologies, and cabling. (60-0)

15:157 Networking II (4 s.h.) Prerequisite: 15:156, Networking I or permission of the instructor. A continuation of Networking I. Provides overview of Ethernet, token ring, ATM, and FDDI; examines routing and addressing issues; studies router setup and configuration; examines LAN designing, testing, and switching; and studies TCP/IP protocol and addressing. (45-30)

15:158 Networking III (4 s.h.) Prerequisite: 15:157, Networking II or permission of the instructor. A continuation of Networking II. Addresses such topics as advanced router configurations, LAN switching, networking management, and advanced network design. (45-30)

15:159 Networking IV (4 s.h.) Prerequisite: 15:158, Networking III or permission of the instructor. A continuation of Networking III. Using primarily hands-on, project-based learning, this course includes advanced network design projects and advanced network management projects. Wide Area Networks are discussed. (45-30)

15:160 Computer Accounting (3 s.h.) Prerequisite: 15:109 Introduction to Accounting or 15:118 Accounting Procedures or 15:150 Accounting Principles I with a grade of *"C"* or above. Designed to provide students with realistic experience with automated accounting consisting of five systems: general ledger, accounts payable, accounts receivable, depreciation, and payroll. Students will find themselves as having taken an accounting position in a company already using a computerized accounting system. Students will be working in an individualized instruction environment. (45-0)

15:161 Operating Systems I (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. This course introduces students to the use of such popular operating systems as Microsoft DOS, Windows 98, Windows 2000 Professional, and Windows NT Workstation. This course also addresses operating system interface and controls; file system management; application management; and network client configuration. (30-30)

15:163 Network Operating Systems (4 s.h.) Prerequisite: 15:177, Operating Systems II, or permission of the instructor. This course goes into detail on topics of network operating system such as design, planning, installation, configuration, security, performance, administration, troubleshooting, fault tolerance, and disaster recovery. Client setup, file and print sharing, directory services, remote access, along with other network services will be explored. (30-60)

15:164 Groupware Applications I (4 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems; 15:156, Networking I; and 15:161, Operating Systems or permission of the instructor. This course provides an introduction to such applications as electronic mail, shared calendars, document sharing, and applications within a networked environment. The course will also include an examination of groupware application features, groupware configuration and management, the relation of desktop applications to group products, a comparison of specific groupware products, and implementation issues related to groupware applications. (45-30)

15:165 Groupware Applications II (4 s.h.) Prerequisite: 15:164, Groupware Applications I or permission of the instructor. This course builds on the Groupware Applications I. The course covers such topics as the advantages and disadvantages of groupware applications, implementation considerations, server installation requirements, initial configuration, and troubleshooting. (45-30)

15:166 Inter/Intranet Application Management (4 s.h.) Prerequisite: 15:163, Network Operating Systems, and 15:177, Operating Systems II, or permission of the instructor. This course enables students to design, set up, configure, and manage Internet and Intranet services such as web, e-mail, DNS, security, and FTP along with gaining knowledge and insight into management of emerging Internet technologies. (30-60)

15:167 Network Security (3 s.h.) Prerequisite: 15:156, Networking I or permission of the instructor. This course will provide an overview of issues related to security in a networked environment, including such topics as security and disaster recovery, security within information services, security within an organization, virus protection, and Internet security/firewalls. (30-30)

15:168 Introduction to Programming (4 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, and 15:196, Structure and Design, or permission of the instructor. This course provides students exposure to computer program design, structure, development, and troubleshooting through an examination of such topics as logic concepts, variables, input/output, iterative constructs, conditional flow, modular design, and the comparison of programming languages. (45-30)

15:169 Media Experience (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. This course covers comprehensively the latest version of HTML. Students will learn

good coding practices and be introduced to web development tools and FTP programs. Students will also be introduced to CSS (Cascading Style Sheets), image management, and basic JavaScript. (30-30)

15:170 Principles of Banking (3 s.h.) Fundamental bank functions presented in a descriptive fashion so that the beginning banker may view the chosen profession in broad (and operational) perspective. (45-0)

15:171 Introduction to Entrepreneurship (3 s.h.) Prerequisite: 15:101, Introduction to Business. The course provides students with an introduction to entrepreneurship and new venture creation. Students will examine the characteristics of successful entrepreneurs and develop insight on developing and enhancing creativity and innovation. Students will also learn the process of assessing new venture proposals and understand the components of a business/feasibility plan. (45-0)

15:172 Managing the Entrepreneurial Venture (3 s.h.) 15:101, Introduction to Business, or 15:171, Introduction to Entrepreneurship, are recommended. The course provides students with the tools necessary to manage and grow a small business. Students will examine the characteristics of successful small businesses and develop insight on developing strategies for successfully growing existing ventures. Students will also learn the process of evaluating the marketing and financial needs of the venture and understand the components of a business plan. (45-0)

15:173 Seminar in Entrepreneurship (3 s.h.) Prerequisite: 15:171, Introduction to Entrepreneurship, and 15:172, Managing the Entrepreneurial Venture. Course will combine group discussions with an actual case project at a local entrepreneurial firm. Students will have an opportunity to apply business skills learned throughout their NIACC program as they complete a project for a local entrepreneurial venture. Students also will discover key entrepreneurial success characteristics. (38-15)

15:174 Database Management (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, or permission of the instructor. This course introduces students to database concepts, with topics such as database structure and design, planning, modeling, database software and servers, SQL, reports, fault tolerance, and administration being covered. Exposure to current and popular database systems will be provided. (30-30)

15:175 Electronic Spreadsheets (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, or 15:134, Computer Applications. Learn the fundamentals of spreadsheets, databases, and business graphics using appropriate software. (30-30)

15:176 Advanced Desktop Applications (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems. Advanced topics in desktop computer applications will be studied in this course. Students will also examine integrated software packages such as Microsoft Office Professional in this class. They will utilize integrated software to solve several business problems presented to them allowing them to gain an understanding of integrated software, as well as other desktop applications, through hands-on experience. The course will be project-based, providing the student with a collaborative environment. (30-15)

15:177 Operating Systems II (3 sh.) Prerequisite: 15:140, Introduction to Computers and Information Systems, and 15:161, Operating Systems I, or permission of the instructor. This course is a continuation of Operating Systems I. It addresses advanced topics such as file management, shell programming, security, network and service administration, fault tolerance, recovery, troubleshooting, and operating system structure. This will be accomplished by studying the Unix or Linux operating systems. (30-30)

15:178 Hardware Service and Support (4 sh.) Prerequisite: 15:140, Introduction to Computers and Information Systems, 15:161, Operating Systems I, or permission of instructor. This course prepares the student to properly install, configure, upgrade, troubleshoot and repair microcomputer hardware. This includes basic knowledge of desktop and portable systems, basic networking concepts, and printers. The student must also demonstrate knowledge of safety and common preventive maintenance procedures. Topics include advanced DOS and Windows concepts such as batch files and memory management, installing and uninstalling software, basic hardware installation, and troubleshooting. (30-60)

15:179 Novell Administration (4 s.h.) Prerequisite: 15:161, Operating Systems I or permission of the instructor. This course provides an overview of where networking operating systems fit into the network solution, including such topics as the components and features of a network operating system, major network operating systems, operating system setup and configuration, network client issues, WAN issues, and network operating system selection criteria. (45-30)

15:186 Internet Programming I (3 s.h.) Prerequisite: 15:169, Media Experience, and 15:196, Structure and Design, or permission of the instructor. This course will teach the fundamentals of client-side web scripting with JavaScript. Students will learn about browser-related object models and their associated properties, events, and methods. Students will work with these models to create documents on the fly, create pop-up documents, manage images, manage framesets, create roll-overs, enable and validate form elements, manage cookies, create and maintain basic databases, define and enable custom objects, and create various web-related tools. (30-30)

15:187 Internet Programming II (3 s.h.) Prerequisite: 15:186, Internet Programming I or permission of the instructor. This course will allow students to continue building their JavaScripting tools while learning how to program in PERL. Students will learn how to access server documents, create and manage databases, and build bulletin boards. A lot of time will be spent building solutions that require PERL, HTML, and JavaScript together. (30-30)

15:188 Web Server Development (4 s.h.) Prerequisite: 15:187, Internet Programming II or permission of the instructor. This course gives students a solid understanding of what is going on behind the scenes of a Web site and the Internet. Students will learn the concepts and components that make up Web servers along with how to support and maintain these servers. Topics such as planning, configurations, testing, protocols, services, performance, disaster recovery, security, fault tolerance, databases, indexing, clients, transactions, SSL, and DNS will be covered. The course will provide experience with popular web servers and software. (30-60)

15:190 General Insurance (3 sh.) Principles of insurance and risk, including personal and business viewpoints in regard to life, health, property, and liability risks. (45-0)

15:191 Introduction to E-Commerce (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems. This course provides students with foundational skills and general information about electronic business solutions on the World Wide Web. Topics will include features of Internet marketing, sales, computer graphics, and network security. Students will also be introduced to Internet-related programming concepts and tools used to create web-based solutions. (30-30)

15:194 E-Commerce Cases (4 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. Investigate current E-Commerce basics and real life scenarios regarding electronic business practices. This capstone course will tie together previous E-Commerce courses to real life applications. (30-60)

15:195 Property and Casualty Insurance (3 s.h.) Prerequisite/Corequisite: 15:190, General Insurance. This course is designed to provide instruction that will provide a high level of understanding of property and casualty insurance. Topics covered include fire, homeowners, dwelling, auto, business and professional liability, crime and fidelity, worker's compensation, and applications from a personal and commercial perspective. (45-0)

15:196 Structure and Design (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. A fundamental requirement for people in the Information Technology field is the ability to organize a solution to a problem. This, in and of itself, is a difficult task. Often, however, this skill takes a backseat to learning code or is lost in the complexity of the task. Structure and Design concentrates on the process of developing a logical algorithmic solution to a problem. (45-0)

15:197 Internet Law (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. Students will learn and examine legal issues associated with e-commerce, including but limited to, intellectual property protection, rights of privacy, content control, antitrust, and problems of jurisdiction. (45-0)

15:199 Web Application Development (3 s.h.) Prerequisite: 15:187, Internet Programming II or permission of the instructor. This course will build on the student's prior Internet Programming knowledge and give them an overview of various web application development resources, tools, languages, and technologies. Students will be introduced to various current tools and technologies available to a Web Developer for development and begin to understand the situations each works best in. Emphasis will be on compare and contrast techniques, proper planning, relating the syntax and elements to other tools and languages, knowledge transfer, how interaction takes place, design, and developing an understanding and use of programming resources. (30-30)

15:200 Life, Health, and Disability Insurance (3 s.h.) Prerequisite/Corequisite: 15:190, General Insurance. This course is designed to provide instruction in a variety of areas giving the student a good understanding of life insurance, health insurance, and the role and application of both within the industry. (45-0)

15:201 Visual Communication (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems or permission of the instructor. This course is an introduction to visual problem solving and communication through the World Wide Web. This course will cover basic technical terminology, an overview of software and equipment for web graphic design and an introduction into digital imagery. Studio assignments will be digitized and sent electronically for evaluation and critique. The goal is to expand student competency in basic visual and technical skills, developing and understanding of how perception relates to communication, and expose students to current issues related to web graphic design. (30-30)

15:202 Web Design (3 s.h.) Prerequisite: 15:201, Visual Communications or permission of the instructor. This course is an expansion of graphic design concepts merging traditional page design, typography, and digital imagery into the concepts and practices of web design. This studio course will cover the preparation of digital images, compositional dynamics, and sequencing of images into a complete working web design. Students will work with current graphic and digital imaging software and web authoring software. (30-30)

15:203 Server Side Scripting (4 s.h.) Prerequisite: 15:204, Java, or permission of the instructor. Students will learn to develop and implement web applications using server side scripting with emphasis on a single language. Additional server side scripting languages and technologies will be discussed. Much of the languages object model and methods will be covered with focus on how to work with these objects and procedures. Students will gain hands-on experience while writing real world-based web applications from the ground up. Database basics will also be learned along with SQL. Simple databases will be created for use with web application back-ends. Students will learn to access and modify their databases by building front-ends for them using server side scripting and embedded SQL. Sufficient time will be spent building solutions that require using ASP, HTML, JavaScript, and various other server side scripting technologies together. (30-60)

15:204 Java (4 s.h.) Prerequisite: 15:187, Internet Programming II, or permission of the instructor. This course introduces students to doing purely object-oriented programming using the Java syntax. Emphasis is placed on using Java for web development. Students learn how to create their own objects and employ these objects as solutions to common real world-based web problems using applications and applets. Students will learn to create interactive elements and simple GUI elements. Use of the java.awt components, event-handling model, containers, and layout managers will also be emphasized. File handling techniques and multithreading will be presented, along with JavaBeans. Applications and applets will be built from buttonup to facilitate in deeper understanding of the concepts used in OOP. (30-60)

15:207 60-Hour Real Estate Prelicense (3 s.h.) This pre-license course is required by the Iowa Real Estate Commission prior to examination for an Iowa Real Estate Salesperson License. Upon completion of this curriculum, participants will be exposed to principles of real estate, terminology, mathematical calculations, procedures and ethics necessary to enable them to understand the real estate profession. This course prepares them to take the Real Estate Salesperson Examination, and to function as a well informed real estate salesperson. (30-30)

15:210 Business Statistics (3 s.h.) Prerequisite: 40:125, Quantitative Methods; 40:140, Intro to Statistics; 40:161, Precalculus; or approval of instructor. The use of statistical methods as an analytical tool in business situations. Data collection, tabular and graphical presentations, frequency distributions, probability, sampling, data analysis, hypothesis testing and regression and correlation analysis. The use of a computer is incorporated into the course. (45-0)

15:211 Word Processing (2 s.h.) This course is designed to introduce students to computers and the fundamentals of word processing. The students will progress from basic through intermediate features of word processing software. Also Open Entry/Open Exit. (20-20)

15:212 Business Communication (3 s.h.) This course will help the student become an effective communicator in the business world. Basic written communication will be emphasized through practice in grammar structure, vocabulary building, and organization of thoughts. These skills will then be implemented when the student plans and writes business letters and interoffice memorandums. A secondary emphasis will be placed on oral communication, listening skills, and nonverbal communication. (45-0)

15:218 Professional Office Procedures (4 s.h.) Prerequisite: 15:211, Word Processing; and 15:212, Business Communication. Office procedures and techniques necessary to perform general office duties. Includes using a word processor, developing transcription skills, using the Internet to access information. filing, handling telephone services, discussing professionalism, applying grammar rules, and taking care of general office administration. Students are expected to spend time outside of class working in the computer lab. (45-30)

15:221 Marketing (3 s.h.) A study of the role of marketing in society as well as a study of target market (customer) determination and selection, product strategy, channels of distribution, pricing concepts, and promotional activities that are used in business today. (45-0)

15:222 Principles of Advertising (3 s.h.) Principles and practices in commonly used advertising media. (45-0)

15:223 Principles of Selling (3 s.h.) This course is centered around the study of concepts and practices used by professional salespeople in today's market-driven economy. The course also includes a study of selling as a promotional strategy used by marketers. (45-0)

15:225 Microsoft Access (1 s.h.) This course is designed to take students through the core competencies for Microsoft Access in preparation for the Microsoft Office User Specialist (MOUS) certification test. (5-20)

15:226 Microsoft PowerPoint (1 s.h.) This course is designed to take students through the core competencies for Microsoft PowerPoint in preparation for the Microsoft Office User Specialist (MOUS) certification test. (5-20)

15:227 Microsoft Outlook (1 s.h.) The course is designed to take students through the core competencies for Microsoft Outlook in preparation for the Microsoft Office User Specialist (MOUS) certification test. (5-20)

15:228 Software Integration (1 s.h.) The student will integrate concepts learned from Microsoft Word, Access, PowerPoint, Excel, and Outlook in a project approach. (5-20)

15:230 Money and Banking (3 s.h.) Prerequisite: 80:133, Macro-

economics. An examination of money, banks, and financial markets and their effects on the U.S. economy in a global setting. The focus is on the nature and functions of money, the supply and demand for money, financial markets and interest rates, the Federal Reserve Banking System, bank safety and regulation, the money supply, and the level of national income and monetary policy. (45-0)

15:241 Human Relations (3 s.h.) The study of how people satisfy both personal growth needs and organizational goals in their careers. Although also interested in the why of human behavior, human relations goes further and looks at what can be done to anticipate problems, resolve them, or prevent them from happening. This field emphasizes knowledge that can be applied in practical ways to problems of interpersonal relations at work or in our personal life. Significant developments in recent years in the workplace have increased the importance of interpersonal skills in almost every type of work setting; these trends provide support for the necessity of acquiring competence in human relations. (45-0)

15:249 Medical Transcription I (3 s.h.) This course is designed to simulate medical transcription practices used in a healthcare environment. The main objective is to provide the student with knowledge of the content and formats of medical documents and reports typically dictated in physicians' offices, hospital clinics, and hospital ancillary and support facilities. (15-60)

15:250 Basic Medical Insurance and Coding (2 s.h.) Prerequisite: 15:251, Medical Terminology I and 94:104, Body Structure and Function. This course will provide the students with an overview of medical health insurance claims submission guidelines and basic coding procedures. In addition, the student will work through a number of relevant case studies. (30-0)

15:251 Medical Terminology I (3 s.h.) A study of medical terminology which should be taken concurrently with 70:250, Anatomy and Physiology, or 94:104, Body Structure and Function, as a part of the Medical Secretary and Medical Assistant curriculum. Introduction of basic medical terminology utilizing a programmed, word-building system to learn word parts to construct and analyze new terms. Emphasis is placed on spelling, definition, usage, and pronunciation. (45-0)

15:252 Medical Terminology II (3 s.h.) Prerequisite: None. However, 15:251, Medical Terminology I is highly desirable. A continuation of 15:251. To be taken concurrently with 70:251, Anatomy & Physiology, by those in the Medical Secretary curriculum. A brief review of basic medical terminology followed by a systems approach to learning terms associated with the anatomical, physiological, and pathological aspects of the body. Classifications of associated pharmaceutical agents are studied with each related system. (45-0)

15:256 Medical Transcription II (3 s.h.) Prerequisite 15:249, Medical Transcription I. This course is designed to introduce students to hospital dictation. The students will progress through various levels of dictation including some advanced documents. (15-60)

15:259 Medical Office Procedures (3 s.h.) Prerequisite: 15:211, Word Processing, and 15:212, Business Communication. Management of a medical office that includes preparing correspondence and patient records, using the Internet to access information, filing, handling telephone services, making and keeping appointments, developing transcription skills, composing letters, discussing professionalism, applying grammar rules, and taking care of general office duties. Also includes medical ethics and etiquette, medical law, and use of a computer for word processing. Students are expected to spend time outside of class working in the computer lab. (45-0)

15:265 Medical Transcription III (3 s.h.) Prerequisites: 15:249, Medical Transcription I. This course is designed to introduce students to live medical dictation from the clinical and radiology settings. The students will also be applying the issues of confidentiality and using medical reference books. (15-60)

15:277 Network Routing (5 s.h.) Prerequisite: 15:159, Networking IV or permission of the instructor. This course focuses on advanced routing using Cisco routers connected in local-area networks (LANs) and wide-area networks (WANs) typically found at medium to large network sites. Upon completion of this training course, the student will be able to select and implement the appropriate Cisco IOS services required to build a scalable routed network. (45-60)

15:278 Network Remote Access (5 s.h.) Prerequisite: 15:277, Network Routing or permission of the instructor. Remote Access focuses on advanced WAN configurations, building remote access networks. The course teaches students how to build a remote access network to interconnect central sites to branch offices and home offices for telecommuters. The course further teaches students how to control access to the central site and how to maximize bandwidth utilization over the remote links. (45-60)

15:280 On-the-Job Training (1-3 s.h.) On-the-Job Training is designed to provide a student an opportunity to apply his/her skills in a job setting. The On-the-Job experience is coordinated with an identified school coordinator and on-site sponsor. This is repeatable credit for a maximum of 6 hours. (0-60 to 180)

15:285 Multi-Layer Switching (5 s.h.) Prerequisite: 15:277, Network Routing or permission of the instructor. This course leads to the CCNP or CCDP. In this course, network administrators learn how to build campus networks using multilayer switching technologies over high speed Ethernet. This course includes both routing and switching concepts, covering both Layer 2 and Layer 3 technologies. (45-60)

15:286 Network Support (5 s.h.) Prerequisite: 15:277, Network Routing; 15:278, Network Remote Access; and, 15:185, Multi-Layer Switching, or permission of the instructor. This course leads to the CCNP. This course teaches students how to baseline and troubleshoot an environment using Cisco routers and switches for multi-protocol client hosts and servers connected with the following: Ethernet and Fast Ethernet LANS, Serial, Frame Relay, and ISDN BRI WANs. The course provides students with methodical practice using specific Cisco IOS software and Catalyst software tools to diagnose and correct problems on widely installed Cisco products. (45-60)

15:287 Emerging Remote Access Technologies (3 s.h.) Prerequisite: 15:159, Networking IV or permission of the instructor. Introduces end-to-end Digital Subscriber Line (DSL) and cable modem technologies with focus on hands-on lab training for technicians on installing, configuring and troubleshooting DSL CPE equipment and infrastructure in a small business environment. Also touches upon Wireless and other emerging technologies communications. (30-30)

15:288 Network Design I (3 s.h.) Prerequisite: 15:158, Networking III or permission of the instructor. This course leads to the CCDA certification. The CCDA certification (Cisco Certified Design Associate) indicates a foundation or apprentice knowledge of network design for the small office/home office (SOHO) market. CCDA certified professionals can design routed and switched networks involving LAN, WAN, and dial access services for businesses and organizations with networks of fewer than 100 nodes. (45-0)

15:289 Network Design II (4 s.h.) Prerequisite: 15:288, Network Design I; 15:277, Network Routing; 15:278, Network Remote Access; and 15:285, Multi-Layered Switching; or permission of the instructor. This course leads to the CCDP certification. The CCDP certification (Cisco Certified Design Professional) indicates advanced or journeyman knowledge of network design. With a CCDP, a network professional can design routed and switched networks involving LAN, WAN, and dial access services for businesses and organizations with 100 to more than 500 nodes. (60-0)

15:290 Fundamentals of Project Management (4 s.h.) Prerequisites: 15:141, MIS I and 15:158, Networking III, or permission of the instructor. Fundamentals of Project Management defines a project and the role of projects in business. Students identify and demonstrate the basic knowledge areas of Project Management and the Project Management Framework. These knowledge areas focus on managing project components including: Integration, Scope, Time (scheduling), Cost, Quality, Human Resource, Communications, Risk, and Procurement. Fundamentals of Project Management clarifies the relationship between Project Management and other management disciplines including general management knowledge and practice, and application-area knowledge and practice. Students learn to apply the breakdown of project phases and processes and construct project plans that employ project phasing and knowledge areas. Students also learn to identify the aspects of project-based organizational systems and classify business organizations by type and project characteristics. Critical Path Method (CPM) project scheduling is learned and utilized to coordinate project planning, execution and analysis throughout a project life cycle. (45-30)

15:299A Special Problems in Business* (1 s.h.) Students may submit a proposal for a special project to the instructor. With the instructor's approval and the consent of the Division Chair and Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course can be repeated for credit. (15-0)

15:299B Special Problems in Business* (2 s.h.) Same as 15:299A. (30-0)

15:299C Special Problems in Business* (3 s.h.) Same as 15:299A. (45-0)

20 Education

20:101 Introduction to Teaching (3 s.h.) An introductory course in teacher education. The place of the school in the community, the basic philosophy, the organization and administration, and the nature of the curriculum. Purposeful observations provide practical experience. (30-30)

20:110 Educational Measurement and Evaluation (2 s.h.) Prerequisite: 20:101, Intro to Teaching 80:103, Educational Psychology; and 80:230, Human Growth and Development. This introductory course in educational measurement and evaluation will provide a survey of the following topics: assessment instrument, test preparation, and use of standardized measures. (30-0)

20:120 Including Exceptional Students (3 s.h.) Prerequisite: 20:110, Educational Measurement and Evaluation; and 80:230, Human Growth and Development. An introductory discussion of issues and practices regarding the inclusion of diverse student populations in general education settings. Topics include integration, mainstreaming, and inclusion. Emphasis is placed on addressing the needs of all students, i.e. general education, special education, gifted, at risk, and multicultural. Formal and informal projects explore adaptive strategies for the curriculum, classroom, and social skill development. (45-0)

20:195 Educational Media and Classroom Computing Techniques (3 s.h.) The production and use of instructional media/computer technology and their relationship to educational strategies. (30-30)

25 Engineering

25:110 Orientation to Engineering (0 s.h.) Designed to help freshmen better understand engineering and assist them in choosing their area of specialization. Presentations by guest engineers from industry who discuss their areas of the profession. Four field trips to a selected engineering department of North Iowa industrial firms. (Class meets one hour per week.) This course has been designated as a pass/no pass course. (10-8)

25:111 Engineering Problems with FORTRAN (3 s.h.) Corequisite: 40:151, College Algebra and Trigonometry I; or 40:161, Precalculus. Development of skills, standards, and orderly methods of solving engineering problems. SI and English measurement and unit conversion. Estimation and calculation with approximate numbers. Significant figures. Graphing and curve-fitting of technical data. Using logarithmic and trigonometric functions. Introduction to engineering economics and statistics. Solution of engineering problems using the FORTRAN language. (30-30)

25:112 Engineering Graphics and Design (3 s.h.) Prerequisite: 25:111, Engineering Problems with FORTRAN, with a grade of "C" or higher, or consent of instructor. The integration of fundamental engineering graphics, computer-aided design (CAD), and engineering design. The use and manipulation of drawing instruments; freehand lettering and sketching; machine and CAD drawing of orthographic views and isometric pictorials; and basic dimensioning. Techniques for visualizing, analyzing and communicating 3-D geometries. Application through creative design projects with written and oral reports. (15-75)

25:231 Statics of Engineering (3 s.h.) Prerequisite: 40:251 Analytic Geometry and Calculus I, with a grade of "C" or higher. Corequisite: 40:252 Analytic Geometry and Calculus II, and 70:282 College Physics I. Scalar and vector quantities, forces, moments of forces, couples, and force systems; equilibrium, centroids and centers of gravity; analysis of structures; internal forces, shear and bending moments; friction; moments of inertia of areas. (45-0)

25:241 Dynamics (3 s.h.) Prerequisite: 40:253, Analytic Geometry and Calculus III and 25:231, Statics of Engineering. Particle and rigid body kinematics, Newton's laws of motion, kinetics of plane motion, rigid body problems using work-energy, linear, and angular impulse-momentum principles, vibrations. (45-0)

25:251 Mechanics of Materials (3 s.h.) Prerequisite: 25:231, Statics of Engineering. Plane stress, plane strain, stress-strain relationships, and elements of material behavior. Application of stress and deformation analysis to members subject to centric, torsional, flexural, and combined loadings. Elementary considerations of theories of failure, buckling. (45-0)

30 English

30:090 Basic Writing (4 s.h.) A developmental writing course designed for students referred by orientation assessment or by instructors. Emphasis is on writing; students will learn strategies for recognizing and compensating for individual writing problems. Students complete the course by meeting the minimum entrance requirements for Communication Skills I. Credit earned will not satisfy the requirements for an Associate Degree and will not be used in calculating the cumulative grade point average for graduation. This course has been designated as a pass/no pass course. (60-0)

30:095 Basic Reading (4 s.h.) A developmental reading course designed for students who test at less than a ninth grade reading ability on standardized tests. Emphasis is on practice in improving concentration, vocabulary, and methods of studying. Credit earned will not satisfy the requirements for an Associate Degree and will not be used in calculating the cumulative grade point average for graduation. This course has been designated as a pass/no pass course. (60-0)

30:101 Communication Skills I (4 s.h.) Improvement of skills in reading, writing, speaking, and listening, with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

30:101C Communication Skills I (3 s.h.) Improvement of skills in reading and writing with an emphasis on expository methods of development and personal experience as supporting material. Students may be requested to use word processors and the Writer's Workbench analyses programs, the Writer's Workbench STEPS programs, and the structuring sentences video series. Students must meet minimum competency requirements in writing to receive a grade of "C" or higher. (45-0)

30:102 Communication Skills II (4 s.h.) Prerequisite: 30:101, Communication Skills I. Students must have earned a "C" or higher grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101 with an emphasis on argumentative and persuasive writing and speaking, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos. Students must meet minimum competency requirements in writing and speaking to receive a grade of "C" or higher. (60-0)

30:102C Communication Skills II (3 s.h.) Prerequisite: 30:101C, Communication Skills I. Students must have earned a "C" or higher

grade in Communication Skills I before enrolling in Communication Skills II. A continuation of 30:101C with an emphasis on argumentative and persuasive writing, on research methods, and on language. Students may be requested to use word processors, Writer's Workbench analyses, Writer's Workbench STEPS, and sentence structuring videos. Students must meet minimum competency requirements in writing to receive a grade of "C" or higher. (45-0)

30:110 Oral Interpretation of Literature (3 s.h.) Meets either Communications or Humanities requirement. Analyzing prose, poetry, and drama selections for their logical and emotional content, and learning platform techniques to present this material to an audience. (45-0)

30:111 Introduction to Poetry/Drama (3 s.h.) A study of selected works of poetry and drama as forms of literature. Discussion and writing emphasizing interpretation, critical analysis, and judgment/evaluation. (45-0)

30:112 Introduction to Short Story/Novel (3 s.h.) A study of selected works of fiction in the short story and novels as forms of literature. Discussion and writing emphasizing interpretation, critical analysis, and judgment/evaluation. (45-0)

30:113 LOGOS (1 s.h.) Students may contribute to the student news publication, LOGOS, for 1-4 credits during their enrollment at NIACC. Credit may be earned through practical experience in reporting, photography, advertising, and other production-oriented work. Staff members are required to attend weekly staff meetings and meet a minimum number of contributions for a passing grade. (0-30)

30:120 College Reading Skills (3 s.h.) Designed to help students become more efficient and effective in reading college textbooks, required materials, leisure articles, and books. Course adapts to the style and needs of each individual to improve vocabulary, comprehension, rate, and study skills. (45-0)

30:121 Introduction to Journalism (3 s.h.) Introduction to Journalism is designed to help the student understand the role of the media in a democracy and how that role is accomplished. The student will also improve communication skills because the course stresses the fundamentals of news gathering, news writing, editing, and publication design. Students will have the opportunity to gain practical experience in news writing and interviewing. The course will stress print media. (45-0)

30:122 News Writing and Reporting (3 s.h.) Prerequisite: 30:121, Introduction to Journalism, and ability to type. News Writing and Reporting serves as a class designed to help the student improve his or her news gathering and reporting skills. Students will be expected to cover a regular news beat and write stories for publication in LOGOS, the student news publication. Students will be expected to conduct interviews and utilize the computer programs used by the paper. (45-0)

30:201 World Literature I (3 s.h.) Readings are drawn from several of the world's great civilizations up to the 18th Century. This course emphasizes prose and poetry from the religious and secular traditions of the Far East, South Asia, the Ancient Mediterranean, Northern Europe, and Ancient and Medieval Near East. (45-0)

30:202 World Literature II (3 s.h.) Readings are taken from works of short story, poetry, novel, and drama from around the world. The course will primarily focus upon literature written from the early 18th Century to Present. World Literature I is not required. (45-0)

30:203 Minority Literature: African American (3 s.h.) Prerequisite: 30:101, Communication Skills I. A study of the writings of major African American from pre-Civil War to contemporary times. Slave narratives, autobiographies, letters, short stories, poetry, and novels will be studied as works of literature. Discussion and writing will focus on the critical analysis of the works. (45-0)

30:204 Minority Literature: American Indian (3 s.h.) Prerequisite: Communication Skills I. A study of the writings of major American Indians from precontact with Europeans to contemporary times. Legends, autobiographies, letters, speeches, poetry, novels and short stories will be studied as works of literature. Discussion and writing will focus on the critical analysis of the works. (45-0)

30:205 Creative Writing (3 s.h.) Prerequisite: A strong interest in writing and a background in literature is stressed before enrolling. A practical workshop in writing and rewriting manuscripts in preparation to publications. Emphasis on articles and short stories; individual instruction in poetry, novel, plays, or children's books. (45-0)

30:210 Children's Literature (3 s.h.) Prerequisite: It is recommended that students have some writing background from 30:101 and 30:102, Communication Skills I and II, and 30:120, College Reading Skills. A study of Children's Literature by genre. An emphasis on teaching literature in the classroom will be a major component of the course. Purposeful school visitations will provide practical experience. This course meets some education program requirements. (45-0)

30:299A Special Problems in Communications* (1 s.h.) Student may submit a proposal for special project. If instructor approves, and with the consent of the Division Chairperson and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeated for credit. (15-0)

30:299B Special Problems in Communications* (2 s.h.) Same as 30:299A. (30-0)

30:299C Special Problems in Communications* (3 s.h.) Same as 30:299A. (45-0)

35 Foreign Languages

35:110 Beginning Spanish I (4 s.h.) Designed for students with little or no previous study of Spanish. Focus is on acquainting the student with fundamentals, including pronunciation, basic grammar needed to express activities in the present and near future. Basic vocabulary will be learned to enhance speaking, listening, writing, and reading skills. (45-30)

35:111 Beginning Spanish II (4 s.h.) Prerequisite: Beginning Spanish I (35:110) or minimum of one year of high school Spanish. Designed as a continuation of Beginning Spanish I. Focus is on reinforcing students' knowledge in fundamentals, including pronunciation, basic grammar needed to express activities in the present and near future. Basic vocabulary will be learned to enhance speaking, listening, writing, and reading skills. New grammar includes being able to communicate in the past tenses, and use the subjunctive for more than commands learned in first semester. Students are expected to use as much Spanish as possible with classmates and the instructor. (45-30)

35:211 Intermediate Spanish I (4 s.h.) Prerequisite: 35:111, Beginning Spanish II or two years or more of high school Spanish. Designed as a comprehensive grammar review, composition, and speaking course. Builds on aural-oral skills, increased vocabulary, and reading short pedagogical stories and authentic language literature. (45-30)

35:212 Intermediate Spanish II (4 s.h.) Prerequisite: 35:211, Intermediate Spanish I or minimum of three years of high school Spanish with instructor approval. Designed as a comprehensive grammar review, composition, and speaking course. Builds on aural-oral skills, increased vocabulary, and reading short pedagogical stories and authentic language literature. (45-30)

35:260A Advanced Spanish I (3 s.h.) Prerequisite: 35:212, Intermediate Spanish II; or four years of high school Spanish with instructor approval. Students will become more comfortable speaking by Q & A, impromptu speaking. Reading skills will be enhanced by reading original short stories and cultural and historical selections from the text. Use of visual aids, video shorts, speaking, and reading will increase vocabulary competency. Grammar study and activities will increase language accuracy and expression. Use of exams will be limited; students will be graded on in-class discussion and homework completion. Students will use the Internet to find and interpret articles from Hispanic newspapers. A final oral and written evaluation will determine the student's progress in the above-mentioned areas. (30-30)

35:261 Advanced Spanish II (3 s.h.) Prerequisite: 35:260, Advanced Spanish I, or four satisfactory years of high school Spanish with instructor approval. Students are expected to maximize their use of Spanish in the classroom. Guided dialogs as well as extemporaneous speaking will increase fluency. Original texts from various Hispanic countries will be used to gain cultural understanding, vocabulary, and provide topics for classroom discussion. By end of semester, students should be able to express themselves in speech and writing using all verb tenses. Short creative writings will be done. Articles from Hispanic countries will be used to expose students to a wide range of events and cultural differences. The use of contemporary music and videos will enhance student listening comprehension. Limited use of tests will be used along with in-class participation and out-of-class work to evaluate student progress. This semester's reading will include one drama (En la ardiente oscuridad) and excerpts from one novel (Como agua para chocolate). As segments of the latter are read, the movie will be watched in segments also. Projects may include listening to one song and writing the lyrics, at semester's end. Every student should demonstrate improvement in all 4 skills--reading, writing, listening, and speaking. (30-30)

35:299A Special Problems in Foreign Languages - Spanish* (1 s.h.) Student may submit a proposal for a special project. With the instructor's approval and the consent of the Division Chair and Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeated for credit. (15-0)

35:299B Special Problems in Foreign Languages - Spanish* (2 s.h.) Same as 35:299A. (30-0)

35:299C Special Problems in Foreign Languages - Spanish* (3 s.h.) Same as 35:299A. (45-0)

40 Mathematics

40:040 Basic Mathematics (4 s.h.) Prerequisite: A score of 15 or higher on the Basic Mathematics Pretest. This is a basic mathematics course that will prepare students to compete in an entry-level math course and to use numbers effectively in other situations. Upon completion, students will be able to perform basic computational skills with whole numbers, fractions, decimals, percentages, and integers. (40:040 is a developmental course. Credit earned will not satisfy the requirements for an Associate degree and will not be used in calculating the cumulative grade point average for graduation.) Students will be allowed to register in Basic Mathematics upon referral from the instructor and/or appropriate diagnosis. **(60-0)**

40:060 Beginning Algebra (4 s.h.) Prerequisite: Basic arithmetic skills as shown by one of the following: 1) a score of 49-100 on the COMPASS Pre-Algebra Test, a score of 1-51 on the COMPASS Algebra Test or a score of 16 or higher on the ACT math test; 2) successful completion © or higher) of 40:040, Basic Mathematics. This course is intended for students who have had no previous experience in algebra. Topics include: the real number system, linear and quadratic equations, exponents, factoring, rational expressions, graphing, systems of equations, radicals, the quadratic formula, square root manipulation, and application of concepts. Credit earned will not satisfy the requirements for an Associate degree and will not be used in calculating the cumulative grade point average for graduation. (60-0)

40:120 Intermediate Algebra (4 s.h.) Prerequisite: Basic algebra skills as shown by one of the following: 1) a score of 51 on COMPASS Algebra test or 20 on the ACT Math Test and one year of high school algebra with a "C" or higher, or 2) successful completion "C" or higher) of Beginning Algebra (40:060). This course should prepare the student for college algebra and trigonometry or other course work that requires the same level of sophistication. Topics include properties of real numbers, linear and quadratic equations, graphs of linear and quadratic equations, systems of equations, polynomials and rational expressions, inequalities, integral and rational exponents, radicals, and complex numbers. This course may not be used to satisfy core requirements. (60-0)

40:121 Mathematics for Decision Making (3 s.h.) Prerequisite: Basic Arithmetic and Algebra skills as shown by one of the following: 1. A score of 16 or higher on the ACT Math Test, or a score of 49 or higher on the Pre-Algebra part of the COMPASS Test AND a grade of *"C"* or better in 40:060, Beginning Algebra (at NIACC) or equivalent; 2. A score of 20 or higher on the ACT Math Test or 51-75 on the Algebra section of the COMPASS test. Mathematics for Decision Making provides a survey of mathematics topics that includes sets, logic, probability, statistics, sets of numbers, algebra, geometry, and consumer math. This course will fulfill 3 hours of Natural Sciences requirement for the A.A. Degree. (45-0)

40:122 Mathematics for Elementary Teachers (3 s.h.) Prerequisite: General Mathematics and Algebra skills as shown by one of the following: 1. A grade of *"C"* or higher in 40:121, Math for Decision Making or 40:120, Intermediate Algebra; 2. A score of 20 or higher on the ACT Math Test or a score of 51 or higher on the Algebra part of the COMPASS test AND successful completion (*"C"* or higher) of Algebra I and Geometry in high school. The course is specifically designed for elementary education majors. Topics include problem-solving strategies, sets, numeration systems, algebra, geometry, logic, calculators and computers, elementary probability and statistics. These topics are presented with a focus on their developmental theory. (45-0)

40:125 Quantitative Methods (3 s.h.) Prerequisite: Two years of high school algebra with a "C" or higher or 40:120, Intermediate Algebra, with a "C" or better. This course provides a sampling of applied mathematics topics from various disciplines. Some topics covered include elementary functions, linear systems, matrices, linear programming, set theory, probability, and Markov chains. (45-0)

40:140 Introduction to Statistics (3 s.h.) Prerequisite: Two years of high school algebra with a "C" or higher or 40:120, Intermediate Algebra, with a "C" or higher. This course is intended to introduce students to basic statistical concepts. It covers descriptive and inferential statistical methods, hypothesis testing on the mean and proportion, Chi-square test for independence, and linear regression. Students are also introduced to technology as it applies to introductory statistical methods. (45-0)

40:151 College Algebra and Trigonometry I (4 s.h.) Prerequisite: Two years of high school algebra with a "C" or higher or 40:120, Intermediate Algebra, with a "C" or higher. This course is intended for students majoring in business, social science, biological sciences, liberal arts, and those mathematics students with insufficient background to begin the study of calculus. The course studies a number of functions in detail, including their graphs and equations, inequalities, and applications based on the functions. These functions include linear, quadratic, and other polynomial functions, rational, root, and inverse functions, exponential and logarithmic functions, and the trigonometric functions. (60-0)

40:152 College Algebra and Trigonometry II (4 s.h.) Prerequisite: 40:151, College Algebra & Trigonometry I with a "C" or higher. This course is a continuation of 40:151. Topics include the further study of trigonometric functions including their applications and inverses, study of vectors, complex numbers, DeMoivre's Theorem, systems of equations and inequalities, matrices, conic sections, parametric and polar equations, probability, sequences and series, and the Binomial Theorem. (60-0)

40:161 Precalculus (4 s.h.) Prerequisite: Two years of high school algebra with a "C" or higher and one year of geometry with a "C" or higher. This course is intended to provide students with a summary of mathematics topics needed to study analytic geometry and calculus. The functional approach is emphasized. Topics covered include fundamentals of algebra, polynomial, rational, exponential, logarithmic, and trigonometric functions, analytic trigonometry, systems of equations, analytic geometry of conics, sequences, and series. (60-0)

40:240 Calculus for Business (3 s.h.) Prerequisite: 40:161, Precalculus, with a grade of "C" or better, or equivalent. This course uses calculus techniques with an emphasis on applications to business, the social sciences, and the life sciences. Types of functions included in the course are polynomial, rational and root, exponential and logarithmic, and trigonometric. Topics include derivatives and their uses, and integrals and their applications. (45-0)

40:251 Analytic Geometry and Calculus I (4 s.h.) Prerequisite: Precalculus (40:161) with a "C" or higher , or both semesters of College Algebra and Trigonometry (40:151and 40:152) with a "C" or higher, or two years of high school algebra with a "C" or higher and one year of high school geometry with a "C" or higher and at least one semester of precalculus or trigonometry with a "C" or higher. Topics include analysis of functions, limits, derivatives and integrals of algebraic, logarithmic, exponential, and trigonometric functions, and applications of differentiation. (60-0)

40:252 Analytic Geometry and Calculus II (4 s.h.) Prerequisite: 40:251, Analytic Geometry & Calculus I. This course is a continuation of 40:251. Topics include applications of the definite integral; principles of integration evaluation; improper integrals; modeling with differential equations; and infinite sequences and series. (60-0)

40:253 Analytic Geometry and Calculus III (4 s.h.) Prerequisite: 40:252, Analytic Geometry & Calculus II. This course is a continuation of 40:252. Topics include graphs and analysis of the conic sections, polar coordinates and parametric equations, three dimensional space, vectors and vector-valued functions, partial derivatives, multiple integrals, topics in vector calculus. (60-0)

40:261 Differential Equations (3 s.h.) Prerequisite: 40:252, Analytic Geometry and Calculus II. Topics include analytic methods for solving first and second order ordinary differential equations, higher order linear differential equations (including Laplace Transforms) and systems of differential equations, numerical methods for approximating solutions of differential equations, and applications using differential equations. (45-0)

40:299A Special Problems in Mathematics* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeated for credit. (15-0)

40:299B Special Problems in Mathematics* (2 s.h.) Same as 40:299A. (30-0)

40:299C Special Problems in Mathematics* (3 s.h.) Same as 40:299A. (45-0)

50 Music

50:113 Exploring Music (3 s.h.) 50:113, Exploring Music is concerned with the development of Western Classical music from 400 BC to the present. Encompassing nearly 2500 years, the course provides the student with knowledge of six historical eras through a variety of media such as lectures, recordings, live performance, and computer-enhanced instruction. (45-0)

50:120 Introduction to Music Theory (2 s.h.) Prerequisite: previous instrumental or vocal music experience. Introduction to Music Theory is designed as a precourse to any Music Theory sequence. The course work will emphasize the circle of fifths, major scales, all forms of the minor scales, parallel and relative scale relationships, and music vocabulary. This course will also introduce the aural skills of scale identification, rhythmic dictation, and interval identification. (22.5-15)

50:121 Music Theory I (4 s.h.) Prerequisite: Previous instrumental or vocal experience. Theory I examines all the basic materials of music which include notation, scales, intervals, chords, melody, harmony, rhythm, and texture. Other areas of analysis take in cadence types, chord inversions, figured bass harmonization, and principles of part writing based on eighteenth century models. This course introduces fundamentals of the aural skills, sight singing, and dictation. (45-60)

50:122 Music Theory II (4 s.h.) Prerequisite: Final grade of "C" or better in 50:121, Music Theory I, or instructor consent. A continuation of 50:121, Music Theory II will examine in more detail the harmonic element of music. Discussions will include the harmonic progression, modulation and specific types of seventh chords as they relate to eighteenth century counterpoint. Further development of aural skills and the introduction of basic keyboard skills are included in the course work. (45-60)

50:123 Music Theory III (4 s.h.) Prerequisite: Final grade of "C" or better in 50:122, Music Theory II, or instructor consent. Students will develop analytical, written, aural, and sight-singing skills in music covering the Renaissance through the early Classical period. (45-30)

50:124 Music Theory IV (4 s.h.) Prerequisite: Final grade of "C" or better in 50:123, Music Theory III, or instructor consent. Students will develop analytical, written, aural, and sight-singing skills in music covering

the late Classical through the 20th Century. (45-30)

50:150 Concert Chorus (1 s.h.) Performs in concert on campus, for area high school assemblies, and community meetings. Participates in music festivals. Course may be repeated for credit. (45-90)

50:151 Voice Ensemble - NIACC Singers (1 s.h.) Vocal work in small ensembles. Performance before school, civic, and community groups. Membership by audition only. Course may be repeated for credit. (0-60)

50:152 Concert Band (1 s.h.) The North Iowa Concert Band, sponsored by North Iowa Area Community College, rehearses one night each week in preparation for concerts and programs. Open to all interested NIACC students and adults in the North Iowa area. Course is repeatable for credit to a maximum of 4 credit hours. (20-0)

50:153 Orchestra (1 s.h.) The North Iowa Symphony Orchestra, sponsored by North Iowa Area Community College rehearses one night each week in preparation for concerts and programs. Open to all interested NIACC students and adults in the North Iowa area. Some sections of the orchestra require an audition. Course is repeatable for credit to a maximum of 4 credit hours. (20-0)

50:154 NIACC Jazz Ensemble (1 s.h.) The NIACC Jazz Ensemble rehearses two and a half hours each week in preparation for concerts on campus, for area high school assemblies, festivals, and community events. Concentration on jazz repertoire from 1930 to the present. Open to all interested NIACC students by audition. Course is repeatable for credit to a maximum of 4 credit hours. (30-0)

50:155 Chamber Ensemble (1 s.h.) Course is designed to provide an opportunity to study and perform chamber literature of the last three centuries. Groups may vary in size from duets to sextets for brass, wood wind, string, or percussion instrumentalists. Also includes jazz combos. Time arranged. Course is repeatable for credit to a maximum of 4 credit hours. (15-0)

Applied Music (1-2 s.h.) Prerequisite for 50:157, Piano: 1 credit hour of 50:195 or equivalent. Individualized instruction in vocal or instrumental performance through the development of strong technical foundation and well-rounded musicianship. Instructional materials include a repertoire of traditional and contemporary literature. Students may register for 1 credit hour (30-minute lesson per week) or 2 credit hours (60-minute lesson per week) each semester. Each course is repeatable for credit to a maximum of 8. Must have instructor consent for 2 credit hours. (7.5-15) or (15-30)

Applied Music courses include:

50:156 Voice
50:157 Piano
50:158 Flute
50:159 Oboe
50:160 Clarinet
50:161 Bassoon
50:162 Saxophone
50:163 Trumpet
50:164 French Horn
50:165 Trombone
50:166 Euphonium
50:167 Tuba
50:168 Percussion
50:169 Drum Set
50:170 Guitar

50:195 Beginning Piano (1 s.h.) One 30-minute lesson per week to be arranged. Designed for students who are beginners. Basic piano literature used. May be repeated for credit. (7.5-15)

50:299A Special Problems in Music* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeated for credit. (15-0)

50:299B Special Problems in Music* (2 s.h.) Same as 50:299A. (30-0)

50:299C Special Problems in Music* (3 s.h.) Same as 50:299A. (45-0)

60 Physical Education

60:107 Bowling (1 s.h.) A 1-hour lab class designed to teach the basic skills and knowledge of bowling through participation in a two hour per week bowling class. Student will be instructed on basic bowling techniques and scoring. Student will participate in various bowling activities such as a class bowling league and other group and individual competition. Class will met at Lee's Lanes in Mason City. Student is required to pay a one-time bowling fee of $45. (2-28)

60:108 Aerobics/Tae-Bo (1 s.h.) A 1-hour lab class designed to increase the students' level of physical fitness and confidence through participating in three levels of Tae-Bo. Tae-Bo is an aerobic form of exercise using basic self-defense techniques of punching and kicking to develop cardiovascular strength, flexibility, and muscular endurance. The class is set up to be progressive with three levels of Tae-Bo included. The three levels are: a basic level, an intermediate level, and an advanced level of Tae-Bo. Class activity will follow the "Billy Blanks Instructional Tae-Bo" videotapes. Class will meet twice each week for one hour. (2-28)

60:112 Scuba Diving (1 s.h.) Development of skills, knowledge, and safety leading to international certification in sport diving. Will involve additional fees for equipment rental, book, certification, pool rent, and purchase of specialized scuba gear. (15-0)

60:113 Physical Fitness (1 s.h.) A lecture course designed to teach the student about the importance of be-

ing physically fit. The course material will provide insight into various methods of testing physical fitness as well as identifying what good physical fitness is. The student will be able to assess his/her own level of physical fitness. (15-0)

60:114 Physical Fitness Lab (1 s.h.) A lab course designed to increase a person's interest of his/her own level of physical fitness. The course provides activities with which the student can improve his/her level of physical fitness in the areas of strength, flexibility, and endurance. The student will be required to participate in class activities twice a week. (0-30)

60:115 Games and Officiating I (2 s.h.) Guiding principles and standards: rules, mechanics, and procedures for competitive sports officiating. Students will work toward becoming a registered official in the Iowa Athletic Associations. Emphasis will be on football officiating, volleyball officiating, and boys' and girls' basketball officiating. Each student will gain actual officiating experience. (28-4)

60:116 Games and Officiating II (2 s.h.) Prerequisite: 60:115, Games and Officiating I. This course is a continuation of 60:115. Attention directed toward the study of wrestling, track, baseball, and softball. (28-4)

60:117 Introduction to Physical Education (Co-ed) (2 s.h.) Designed to provide career information concerning opportunities in physical education, coaching, and recreational activities. (30-0)

60:118 Care and Prevention of Athletic Injuries (2 s.h.) Recommended: one semester course in anatomy and physiology. Introductory preparation in athletic training, injury, treatment techniques, taping, wrapping, etc. Preventative measures to reduce athletic injuries. Course may be used to fulfill partial requirement for Iowa Coaching Certification. (30-0)

60:120 Baseball (1 s.h.) Course may be repeated for credit. (40-160)

60:121 Basketball (1 s.h.) Course may be repeated for credit. (40-160)

60:122 Football (1 s.h.) Course may be repeated for credit. (40-160)

60:123 Golf (1 s.h.) Course may be repeated for credit. (10-60)

60:127 Softball (1 s.h.) Course may be repeated for credit. (40-160)

60:128 Volleyball (1 s.h.) Course may be repeated for credit. (40-100)

60:129 Soccer (1 s.h.) Course may be repeated for credit. (40-100)

60:150 Theory, Ethics, and Professional Responsibilities of Coaching Interscholastic Athletics (1 s.h.) Guiding principles and techniques of coaching interscholastic athletics. Discussion of the ory, ethics, and professional responsibilities as they relate to coaching interscholastic athletes. (20-0)

60:152 Introduction to Anatomy and Physiology for Coaching (1 s.h.) An introduction to anatomy and physiology with stress on the relationship to athletic actions. This course is designed as an introductory course for prospective coaches with little or no background in anatomy and physiology. (15-0)

60:153 Human Development in Sports (1 s.h.) A one-semester course with emphasis on human growth and development and relationship to physical activity, with special attention to children and adolescents. (15-0)

60:175 Rape Education and Self Defense (2 s.h.) Rape Education and Self Defense is a course of study designed to introduce the participant to basic self-defense concepts and techniques, to heighten the participant's level of awareness and alertness in her environment, to provide participant with information about violent contexts, and to provide the participant with basic physical methods of self-defense. In general, this course cannot offer absolutes; however, the theory behind such a course rests in the concept that those armed with information and a few operational options stand a better chance of avoiding and, when avoidance fails, surviving violence. (30-0)

60:232 First Aid and Personal Safety (1 s.h.) Lecture-type course designed to give the layperson adequate first aid knowledge and skills with emphasis on accident prevention and recognition and treatment of common medical emergencies. (15-0)

60:299A Special Problems in Physical Education* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeatable for credit. (15-0)

60:299B Special Problems in Physical Education* (2 s.h.) Same as 60:299A. (30-0)

60:299C Special Problems in Physical Education* (3 s.h.) Same as 60:299A. (45-0)

70 Natural Sciences

70:100 Intro to Lab Science (2 s.h.) Prerequisite: 30:101, Communication Skills I; 80:110, Sociology OR 80:101, General Psychology; 70:140, Intro to Chemistry; 70:250, Anatomy and Physiology I. This course familiarizes the student with the Medical Laboratory Technician program and the field of laboratory medicine. The organization and role of the clinical laboratory are explored, as well as medical ethics and conduct, employment opportunities, and professional opportunities. (30-0)

70:101 Biological Principles (3 s.h.) Study of organismic biology including organization, metabolism, and reproduction of living systems. Includes evolutionary patterns, inheritance, growth, development, ecosystems, reproduction, and structure-function relationships among organisms. (45-0)

70:102L Biological Principles Laboratory (1 s.h.) Prerequisite: Credit for 70:101 or current enrollment in 70:101. Biological Principles Laboratory. (0-30)

70:104 Environmental Science (3 s.h.) The study of ecological principles and the interrelationships among populations, resources, and pollution in developing a sustainable society. Topics include: population, ecology, soil, water, land, air, and energy resources, plus air, water, soil, and waste management. Environmental decision-making strategies to resolve current and future environmental issues are stressed. (30-30)

70:105 Biology I (4 s.h.) Prerequisite/Corequisite: concurrent enrollment in 70:135, General Chemistry I, or 70:137, Chemistry Principles I, is strongly encouraged. Detailed study of the fundamental principles of biology. Includes study of cell structure and function, energy transfer, inheritance, evolution, and ecology. Course is intended for students majoring in biology or pursuing careers in the premedical or related fields which require an emphasis in biology. (45-30)

70:108 Biology II (4 s.h.) Prerequisite: 70:105, Biology I. The diversity of life. Characteristics, structures, and functions of the major groups of living organisms will be examined. (45-30)

70:109 Microbiology (4 s.h.) Morphology, physiology, taxonomy, and relationship of microorganisms to disease. In-depth laboratory study and suitable lecture material with applications to agriculture, industry, and medicine. (45-30)

70:110 Health and Nutrition (3 s.h.) The science of health and its application to the individual, home, community, and school. Elementary physiology, nutrition, dependency, and current health problems of national concern. (45-0)

70:111 Human Biology (4 s.h.) Course provides overview of human biology for nonscience majors. Includes study of cells, tissues, organs, and systems with emphasis on interrelatedness. Coverage also includes genetics, aging, human ecology, and aspects of various human diseases. (45-30)

70:112 Animal Science I (3 s.h.) This course is designed to provide students with a general overview of the livestock industry. It identifies the ways in which domestic animals serve the basic needs of humans for food, fiber, shelter, protection, fuel and emotional well-being. Students will develop an understanding of and be able to apply the basic principles of animal selection, breeding, genetics, feeding, health, and husbandry practices. As a student, you will become familiar with the economic and social issues that confront the livestock industry. (45-0)

70:113 Fire Behavior and Investigation (4 s.h.) This course is designed to assist in training firefighters and fire officers to properly determine the origin and cause of fire. (45-35)

70:114 Intro to Physical Science and Lab (4 s.h.) Prerequisite: High school Algebra or equivalent. An introductory college level, one-semester course intended to meet general education requirements. Topics are chosen from the fields of physics and chemistry. (45-30)

70:115 Fire Protection Technology (4 s.h.) This course will familiarize the student with the different types of building construction as they relate to fire protection. Also covered will be: private fire protection systems, municipal water systems, state and local codes. (65-15)

70:116 Hazardous Material Technician (3 s.h.) This course will be oriented toward preparing emergency response team members to perform advanced control, containment, and/or confinement operations; understand hazard and risk assessment techniques; know how to identify materials using field response plan; understand the various roles within the incident command system; properly identify, select, and use specialized chemical protective clothing; and perform decontamination activities on personnel equipment. (30-30)

70:117 Incident Command System (1 s.h.) This course is designed to meet the needs of fire officers and managers with responsibilities to use, deploy, implement, and/or function within an incident command system. This addresses the need for incident management systems, an overview of the structure and expandable nature of ICS, and understanding of the command skills needed by department officers to effectively use ICS guidelines, and scenario practice. (15-0)

70:119 Fire Instructor I (2 s.h.) This course develops the participants' attitudes, knowledge, skills, and abilities to effectively implement and manage tactical operations. Develop a basic understanding of fire fighting strategies and tactics. (24-24)

70:122 Principles of Physics (4 s.h.) Prerequisite: 40:120, Intermediate Algebra, or equivalent. An introductory level, one-term course. Major topics are measurement, matter in motion, heat, wave motion, electricity, and magnetism. (45-30)

70:135 General Chemistry I (5 s.h.) Prerequisite: 40:060, Beginning Algebra, or equivalent. Introduction to the basic concepts and facts of chemistry. Topics include atomic structure, formation of ionic and covalent compounds, molecular structure, chemical equations including mass relations, solutions, and gases. Intended for nonscience majors. (45-60)

70:136 General Chemistry II (5 s.h.) Prerequisite: 70:135, General Chemistry, or the equivalent. Continuation of 70:135, General Chemistry 70:135. Topics include types of chemical reactions and chemical reactivity, equilibrium concepts, reaction rates, electrochemical cells, introductions to organic chemistry and biochemistry. Intended for nonscience majors. (45-60)

70:137 Chemistry Principles I (5 s.h.) Prerequisite: satisfactory completion of one year of high school chemistry; 40:120, Intermediate Algebra, or the equivalent. Atomic structure, stoichiometry, thermochemistry, physical properties (gases, liquids, solids, and solutions), chemical bonding and molecular structure, structure-property relationships. (45-60)

70:138 Chemistry Principles II (5 s.h.) Prerequisite: 70:137, Chemistry Principles I, or equivalent. Chemical equilibrium and kinetics, acid-base chemistry, chemical thermodynamics, electrochemistry, descriptive chemistry of selected elements, introduction to organic chemistry and polymers, nuclear reactions. (45-60)

70:140 Introductory Chemistry (4 s.h.) Prerequisite: 40:060, Beginning Algebra, or equivalent. A first-year college chemistry course which covers the concepts of chemistry. Among the topics included are systems of measurement, matter and energy, atomic theory, energy levels and atomic structure, the periodic table, ionic and covalent bonding, chemical equations, stoichiometry, acids and bases, states of matter, solutions, and redox. Lab experiments are performed and complement the classroom theory. (45-30)

70:149 Kinesiology (3 s.h.) Prerequisite: 70:250, Anatomy and Physiology I; and 70:251, Anatomy and Physiology II. Provides a basic understanding of normal human body movement as related to skeletal, articular, neurological, and muscular systems. Levers, torques, center of gravity, base of support, and their relationship to balance, posture, and movement will be addressed. The student will learn anatomical palpations and the basics of human gait. (30-30)

70:161 Genetics (4 s.h.) Prerequisite: One term of biology or consent of instructor. The course is an introduction to basic modern genetics. It includes: the nature of the genetic material and how it is transmitted between generations; gene regulation and interactions; human genetics; genetic engineering, and its implications. (45-30)

70:182 Astronomy (3 s.h.) An introductory level, one-semester course for the nonscience major. Topics include a brief history of astronomy, the physics behind astronomy, the solar system, stars, and galaxies. Hands-on activities complement material in the text. (45-0)

70:200 Nutrition (3 s.h.) Prerequisite: three credit hours of inorganic chemistry. Physiology very helpful, but not essential. Introduces the scope of the science of nutrition and its application to the nurse's role in promoting good nutrition throughout the life span. Principles of diet modification are presented as they relate to specific health problems. Nursing assessment, the patient's nutritional needs, and dietary planning are included. (45-0)

70:212 Animal Science II (3 s.h.) This course applies advanced principles of livestock production and management. Areas of emphasis include: a review of animal husbandry practices, which result in greater performance and profit; livestock facilities requirements; production trends, animal health, and nutritional requirements for livestock produced in the Midwest; emphasis on swine and beef cattle production. (45-0)

70:249 Urinalysis I (3 s.h.) Prerequisite: 70:100, Intro to Lab Science. This course includes the study of urine formation and the methodology determining the physical, chemical, and microscopic properties of urine in normal and abnormal states. (30-30)

70:250 Anatomy and Physiology I (4 s.h.) Prerequisite: Human biology or biological principles highly recommended. A study of the human body emphasizing the complementary nature of structure and function, molecular and cellular interactions, homeostasis, and metabolic processes. A cadissection constitutes a major portion of the laboratory exercises. Includes a study of cells, tissues, membranes, skeletal, muscular, and reproductive systems. (45-30)

70:251 Anatomy and Physiology II (4 s.h.) Prerequisite: Successful completion of 70:250, Anatomy and Physiology I, strongly recommended. A continuation of 70:250, Anatomy and Physiology I. Includes a study of the circulatory, respiratory, digestive, endocrine, urinary, and nervous systems. Cadissections continued, plus kidney, brain, and eye dissections. (45-30)

70:260 Quantitative Analysis (4 s.h.) Prerequisite: 70:137 and 70:138, Chemistry Principles; or 70:135 and 70:136, General Chemistry. Theory and practice of general gravimetric, volumetric, and instrumental methods of chemical analysis; laboratory work involving quantitative reactions, measurements, and calculations. (45-30)

70:272 Fundamentals of Organic Chemistry (3 s.h.) Prerequisite: 70:135, General Chemistry; 70:137, Chemistry Principles I; or 70:140, Introductory Chemistry. A survey of organic chemistry and biochemistry for students in nursing and related fields. Topics include organic reaction mechanisms; nomenclature chemistry of carbohydrates, lipids and proteins, and their metabolism; biochemical systems. (45-0)

70:273 Organic Chemistry (4 s.h.) Prerequisite: 70:140, Introductory Chemistry; 70:135, General Chemistry; or 70:137, Chemistry Principl-

ples I. This course provides instruction in the preparation and reactions of the basic classes of carbon compounds. Among these include hydrocarbons, alcohols, esters, carboxylic acids and their derivatives, aldehydes, ketones, amides, and amines. Laboratory procedures and techniques dealing with nonaqueous solvents are developed. (45-30)

70:274 Organic Chemistry I (5 s.h.) Prerequisite: 70:136, General Chemistry II, or 70:138, Chemistry Principles II. For students looking forward to work in medicine, pharmacy, dentistry, veterinary science, or chemical engineering, and for students intending to major in chemistry. (45-65)

70:275 Organic Chemistry II (5 s.h.) Prerequisite: 70:274, Organic Chemistry I. This course is a continuation of 70:274. The lecture and laboratory incorporates spectral use and applications. (45-65)

70:280 General Physics I (4 s.h.) Prerequisite: 40:151, College Algebra and Trigonometry, or equivalent. Mechanics, simple harmonic motion, waves, and fluids. Designed for students in pharmacy, medicine, dentistry, and professional fields other than engineering. Liberal arts students with an interest in science may elect this course. (45-30)

70:281 General Physics II (4 s.h.) Prerequisite: 40:151, College Algebra and Trigonometry or equivalent, and 70:280, General Physics I; or equivalent algebra-based first semester physics course as approved by the instructor. A continuation of 70:280, thermodynamics, electricity and magnetism, DC and AC circuits, optics and atomic physics. (45-30)

70:282 College Physics I (5 s.h.) Prerequisite: Calculus concurrent or in background. Calculus-based Physics with emphasis on engineering applications. (60-30)

70:283 College Physics II (5 s.h.) Prerequisite: Calculus concurrent or in background. Calculus-based physics with emphasis on engineering applications. (60-30)

70:297A Special Problems in Biology* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeatable for credit. (15-0)

70:297B Special Problems in Biology* (2 s.h.) Same as 70:297A. (30-0)

70:297C Special Problems in Biology* (3 s.h.) Same as 70:297A. (45-0)

70:298A Special Problems in Chemistry* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeatable for credit. (15-0)

70:298B Special Problems in Chemistry* (2 s.h.) Same as 70:298A. (30-0)

70:298C Special Problems in Chemistry* (3 s.h.) Same as 70:298A. (45-0)

70:299A Special Problems in Physics* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeatable for credit. (15-0)

70:299B Special Problems in Physics* (2 s.h.) Same as 70:299A. (30-0)

70:299C Special Problems in Physics* (3 s.h.) Same as 70:299A. (45-0)

80 Social Sciences

Note: All courses in this category do not meet the Social Science distribution requirement. See pages 152-155 for courses which specifically meet this requirement.

80:101 General Psychology (3 s.h.) Corequisite: New students with entering ACT or COMPASS reading scores below college level will be required to co-enroll in 30:120, College Reading Skills. An introduction to the scientific study of behavior; a brief history of psychology as a science, and topics fundamental to human behavior including developmental issues, sensory abilities, cognitive performance, social and emotional factors in behavior, and abnormal behavior and therapies. (45-0)

80:103 Educational Psychology (3 s.h.) Prerequisite: 20:101, Intro to Teaching, is highly recommended, but not required prior to taking Ed Psychology. Study of teaching and learning process. Mental hygiene, evaluation, individual differences, motivation, and teaching methods are introduced as they apply to the teaching and learning environment. (45-0)

80:104 Child Psychology (3 s.h.) Prerequisite: 80:101, General Psychology, and/or 80:230, Human Growth and Development. Course covers information relevant to the development of humans from the prenatal stages through adolescence. Topics covered include the developing fetus, as well as physical, social, and psychological development in infancy, toddlerhood, childhood, and adolescence. (45-0)

80:110 Sociology (3 s.h.) An introductory survey course, sociology is the scientific study of society. Inquires into what holds societies together, what causes societies to change, and how social forces affect our daily lives. Topics covered include: culture and society, socialization, social research, groups, organizations, institutions, deviance, gender, race and ethnicity. An emphasis is placed on cultural diversity. (45-0)

80:111 Social Problems (3 s.h.) Prerequisite: 80:110, Sociology, is strongly recommended. Introduction to the study of contemporary social problems. The course examines how social problems are identified, explores underlying conditions and causes of social problems, and considers possible solutions and policy implications. Emphasis is on sociological and critical thinking frameworks. Topics of exploration include: mental illness, substance abuse, crime, prejudice and discrimination, prostitution, poverty, and more. (45-0)

80:112 Marriage and Family (3 s.h.) A survey of the family as a social unit in the modern American culture. A study is made regarding the creation of the American family from various cultures as well as the problems the family is subjected to such as sex relations, social roles, communication, finance, and divorce. (45-0)

80:114 Introduction to Human Services (3 s.h.) This course is designed to familiarize the student with the human services arena. Various employment opportunities are explored, as well as ethical, legal, political, and economic forces. (45-0)

80:120 Introduction to American Government (3 s.h.) A survey of the American federal system of government including a description and analysis of the Constitution, the legislative, executive, and judicial branches of government, and the American political process. (45-0)

80:121 American State and Local Government (3 s.h.) A survey of state and local governments in the United States including an analysis of federal-state relations, state constitutions, state and local legislative, executive, and judicial systems, and major issues in state and local politics. (45-0)

80:122 International Relations (3 s.h.) An introductory course in international relations which offers an analysis of the structure and processes of world politics. Topics covered include the study of foreign policies, a survey of major problems in contemporary world affairs, and an examination of selected global issues. (45-0)

80:125 Student Senate (1 s.h.) Students learn organizational and leadership skills through participation in the NIACC Student Senate, student and college committees, and student activity programming. Each student will identify and carry out a project to demonstrate leadership skills including needs assessment, planning, budgeting, motivating volunteers, and evaluation. Course may be repeatable for credit. (0-30)

80:127 Leadership Development Seminar (2 s.h.) This course will help students develop the necessary skills to be an effective leader. Topics covered include developing a leadership philosophy, articulating a vision, decision making, time management, team building, empowering and delegating, initiating change, managing conflict, and ethics. Class time will primarily consist of discussion and small-group activities. (15-30)

80:133 Macroeconomics (3 s.h.) An introductory study of how people use scarce resources to satisfy unlimited wants. After an introduction to economics, the emphasis is on the determination of national income, output, employment, and the general price level in the national economy including an examination of the money and banking system. (45-0)

80:134 Microeconomics (3 s.h.) Prerequisite: 80:133, Macroeconomics. An introductory study of how people use scarce resources to satisfy unlimited wants. The emphasis is on the behavior and decisionmaking by individual consumers, entrepreneurs, workers, and other resource owners in the product and resource markets and the resulting effects on the efficiency with which resources are used. (45-0)

80:135 Personal Finance (3 s.h.) Introduction to financial planning, using financial services and your income wisely, protecting your assets, increasing your income through savings and investment, and planning for retirement. (45-0)

80:140 American History to 1877 (3 s.h.) A survey course covering the social, political, and economic history of American civilization from the Age of Discovery through Reconstruction. (45-0)

80:141 American History 1877 to Present (3 s.h.) A survey course covering the social, political, and economic history of the United States since 1877. (45-0)

80:144 American Indian History: Prehistory to Mid-20th Century (3 s.h.) Ethnographic and historical survey of the social, cultural, and political systems developed by Native Americans north of Mexico, and the developing relationship of these systems with those of the European-Americans. Native religion and world view, agricultural and hunting practices, material culture, trade, diplomacy and political structures are examined, as are the mutual impact on both societies resulting from contact with and interaction between native North Americans and Europeans and their descendants. (45-0)

80:150 Introduction to Physical Geography (3 s.h.) An introductory systems course in geography that acquaints the student with spatial relationships that exist in the physical environment. Topics include: geographic tools, weather and climate, land forms, soils, water resources, plants, and animals. Lab experience included. (45-0)

80:151 Regional Geography of the Developed World (3 s.h.) A regional study of the physical and cultural spatial patterns of Europe, Australia, Russia, and Anglo-American. (45-0)

80:152 Regional Geography of the NonWestern World (3 s.h.) A regional study of the physical and cultural spatial patterns of Middle America, South America, North Africa/Southwest Asia, South Asia, East Asia, Southeast Asia and the Pacific World. (45-0)

80:160 Cultural Anthropology (3 s.h.) Prerequisite: Three of the following: Sociology, Psychology, Marriage and Family, Biology, Literature, or Genetics. This course embraces cultures from all continents; highlights major human subsistence patterns; and illustrates human adaptation to the environment, from the beginning of human history to the present. Individual studies enable students to experience cultures in-depth. The student's goal is to understand one's own culture from a historical perspective and to analyze the forces of today in terms of how those forces may affect the future of earth and mankind. (26-38)

80:190 Criminal Law I (3 s.h.) The philosophy and basis for law; the historical development of criminal law and procedures; the structure, definitions, and criminal laws of Iowa. Required course for Law Enforcement curriculum. (45-0)

80:191 Criminal Law II (3 s.h.) Required course for Law Enforcement curriculum. Covers the law of arrest, search, and seizure. A continuation of 80:190. (45-0)

80:192 Patrol Procedures (3 s.h.) Responsibilities, techniques, and methods of police patrol. Methods of traffic law enforcement, regulation and control; and fundamentals of traffic accident investigations. (45-0)

80:201 Western Civilization to 1648 (4 s.h.) A study of the major social, political, economic, cultural, and philosophical movements in the Western World from the beginning of civilization to 1648. (60-0)

80:202 Western Civilization 1648 to the Present (4 s.h.) A study of the major social, political, economic, and philosophical movements in the Western World from 1648 to the present. (60-0)

80:210 Introduction to Philosophy (3 s.h.) Introduces the student to the study of philosophy and teaches skills of critical thinking. The course examines the meaning and value of philosophy; human nature and the self; axiology -- ethics and values (in search of the good life); social philosophy; freedom; individualism; philosophy and art; epistemology -- the nature of knowledge; truth; philosophy and science; metaphysics -- reality; philosophy and religion; the meaning of suffering and death; examination of decision making and self-discovery. (45-0)

80:212 Ethics (3 s.h.) This course is designed to develop objective thinking skills. The goal is to create a balance between moral principles when considering a variety of ethical issues. The emphasis will be on developing a moral stance that is workable in today's society. Issues include poverty, environment, animal rights, business, ethics, preferences in hiring, war, death penalty, abortion, euthanasia, parent-child relationships, sex, love, and marriage. (45-0)

80:230 Human Growth and Development (3 s.h.) A study of the physical, mental, emotional, and social growth of the person from infancy through adulthood. Discussions include the need for love, affection, and attention; the concept of ego and sense of identity; the need of human bonds; the value of interpersonal dialogue; the capacity to develop intelligence; and the socioeconomic/ethnic influences. (45-0)

80:290 Criminal Evidence (3 s.h.) The kinds and degrees of evidence and the rules governing the admissibility of evidence in court. Required course for Law Enforcement curriculum. (45-0)

80:291 Administration of Justice (3 s.h.) Arrest, search and seizure; review of court systems; procedures from incident to final disposition; principles of constitutional, federal, state, and civil laws as they apply to and affect law enforcement. Required course for Law Enforcement curriculum. (45-0)

80:292 Criminal Investigation (3 s.h.) Fundamentals of investigation, crime scene search and recording, collection and preservation of physical evidence, scientific aids, modus operandi, sources of information, interviews and interrogation, follow-up, and case preparation. (45-0)

80:299A Special Problems in Social Sciences* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. (15-0)

80:299B Special Problems in Social Sciences* (2 s.h.) Same as 80:299A. (30-0)

80:299C Special Problems in Social Sciences* (3 s.h.) Same as 80:299A. (45-0)

85 Speech & Theatre

85:101 Public Speaking (2 s.h.) Public speaking as an intellectual tool for use in argumentation and persuasion in a democratic society. (Offered each term.) (30-0)

85:105 Group Discussion (2 s.h.) Principles and techniques of group discussion methods and procedures based on parliamentary methods. (30-0)

85:150 Introduction to Theatre TV and Film (3 s.h.) A survey of dramatic theatre, television, and film. (45-0)

85:160 Stagecraft (3 s.h.) An introduction to the construction, painting, and shifting of stage scenery, including scene shop methods and maintenance. (45-40)

85:170 Introduction to Acting (3 s.h.) Basic principles of stage acting. Work in mime, monologue, and play cuttings to develop techniques of voice, gesture, movement, and characterization. (45-0)

85:299A Special Problems in Speech/Theatre* (1 s.h.) Student may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeatable for credit. (15-0)

85:299B Special Problems in Speech/Theatre* (2 s.h.) Same as 85:299A. (30-0)

85:299C Special Problems in Speech/Theatre* (3 s.h.) Same as 85:299A. (45-0)

89 Experiential Learning, Electives, EMT and Nurse Aide

89:100 A-B-C-D-E Cooperative Work Experience (1-5 s.h.) Practical training on the job under the cooperative supervision of the college and work supervisor. Designed primarily for the college transfer students to provide an experience that: (1) is directly related to their college program and career objectives; or (2) will help them test out career interest and/or discover new career possibilities. Credit is determined on the basis of one semester of credit for each 60 hours of approved employment to be completed in a term. Appropriateness of learning objectives is an essential factor in the approval process. 1-5 credits per semester, 12 credits maximum. (0-60 to 300)

89:120 Individualized Educational Planning & Assessment (1 s.h.) Prerequisite: Students must have the consent of the instructor. The introductory and required beginning course for the Individualized Competency Based Education Program (ICBE). It is designed to teach educational assessment and evaluation, career development and goal setting, degree pact writing and individualized educational planning. (15-0)

89:150 Employment Strategies (1 s.h.) Develop skills necessary to enter the job market and experience long-term career growth. Students learn basic job seeking techniques, job keeping skills, and strategies for continued growth. (15-0)

89:151 Academic Success Seminar (2 s.h.) Designed primarily for freshmen. The focus is assisting in the development of effective study techniques and comprehensive skills necessary for independent learning and academic success. (30-0)

89:152 Career Decision Making (2 s.h.) Introduction to a structured career decision-making process, including self-awareness, career and educational information, computerized assistance, and related activities/projects. (30-0)

89:153 ACE-Action for College Education (1 s.h.) Prerequisite/Corequisite: For participants in the Student Support Services Project. ACE (Action for College Education) is a motivational behavioral modification program. The course cultivates a positive attitude and gives students the motivation to help themselves in a college setting. The goal is to instill confidence, eagerness, and enthusiasm toward obtaining a college degree. (15-0)

89:155 Financial Management/Insurance Internship (3 s.h.) The internship will provide practical application for each student. The activities will be in the actual insurance industry environment where each student will be afforded the opportunity to turn theory into application. (15-150)

89:163 Professionals in Health (2 s.h.) Presents skills and characteristics expected for professional preparation and employability. Provides an overview of the health industry, current trends, and issues. Discusses the work environment as it relates to health and safety regulations. (30-0)

89:164 Nurse Aide Theory (2 s.h.) Prerequisite/Corequisite: At least 14 years of age. Strength and endurance to meet the requirements in performing skills such as lifting and moving residents. Completed 16-hour video and workbook. Physical exam with Rubella Titer, TB test, hepatitis B vaccine or waiver. This 75-hour nurse aide course has been designed to meet the training requirements of The Omnibus Budget Reconciliation Act of 1987 (OBRA) for aides working in nursing facilities (NF) and skilled nursing facilities (SNF). Emphasis in the course is on students achieving a basic level of knowledge and demonstrating skills to provide safe, effective resident care. The course has been developed in six units of study. (30-0)

89:165 Nurse Aide Clinical (1 s.h.) This course is part of 89:164, Nurse Aide Theory. (0-45)

89:170 First Responder (2 s.h.) Prerequisite: At least 17 years of age at the time of enrollment. Proficient in writing, reading, and speaking English. Hold or eligible to obtain a driver's license. Physically and emotionally capable of performing basic emergency care skills. Current certification at the Basic Cardiac Life Support Health Care Provider Module with the American Heart Association or permission obtained by the instructor. A 45-hour emergency care course which emphasizes life-threatening emergencies, wounds, fractures, medical and environmental emergencies, and other emergency situations as outlined by the U.S. DOT. (23-17)

89:171 EMT-P: Part I (6 s.h.) Prerequisite: EMT-B and EMT-I State of Iowa Certification, or 89:189, EMT-I: Part I. This course provides the student with advanced prehospital training. It includes roles and responsibilities, overview of human systems, emergency pharmacology, airway

management, patient assessment, and trauma management (including PHTLS). (60-60)

89:172 EMT-P: Part II (7 s.h.) Prerequisite 89:171, EMT-P: Part I. This course is a continuation of 89:171, EMT-P: Part I. It includes respiratory, cardiac, diabetic, neurological, toxicological, abdominal, gynecological, behavioral, pediatric, geriatric and obstetrical emergencies. (71-69)

89:173 EMT-P: Part III (3 s.h.) Prerequisite 89:171, EMT-P: Part I; 89:172, EMT-P: Part II. This course includes 68 hours of hospital clinical experience and 67 hours of field experience. (0-0-90-45)

89:174 EMT-P: Part IV (3 s.h.) Prerequisite 89:171, EMT-P: Part I; 89:172, EMT-P: Part II; 89:173, EMT-P: Part III. This course includes 67 hours of hospital clinical experience and 68 hours of field experience. (0-0-45-90)

89:175 EMT-I (4 s.h.) Prerequisite: EMT-B State of Iowa Certification. This class provides the student with advanced skills to provide emergency care and transport. It includes roles and responsibilities, legal aspects, EMS system and communications, patient assessment, advanced airway management, shock management, including intravenous therapy and defibrillation. It also includes 45 hours of clinical/field experience. (30-30-45)

89:195 Emergency Medical Technician - Basic Part I (4 s.h.) Prerequisite/Corequisite: Be at least 17 years of age at the time of enrollment. Be proficient in writing, reading, and speaking English. Hold or be eligible to obtain a current driver's license. Be physically and emotionally capable of performing basic emergency care skills. Current certification at the Basic Cardiac Life Support Health Care Providers Course with the American Heart Association. Physical examination required prior to beginning hospital clinicals with immunizations and hepatitis B vaccine or waiver. This class provides the student with the necessary knowledge and skill to perform basic emergency care and transport. It includes an introduction/preparation module, airway management module, patient assessment module, medical/behavioral emergencies module, and obstetrical/gynecological emergencies module. Six hours of clinical in the hospital and nursing home is also included. (47-24-6)

89:196 Emergency Medical Technician - Basic Part II (2 s.h.) Prerequisite/Corequisite: Be at least 17 years of age at the time of enrollment. Be proficient in writing, reading, and speaking English. Hold or be eligible to obtain a current driver's license. Be physically and emotionally capable of performing basic emergency care skills. Current certification at the Basic Cardiac Life Support Health Care Providers Course with the American Heart Association. Physical examination required prior to beginning hospital clinicals with immunizations and hepatitis B vaccine or waiver. Must have completed EMT-Basic Part I (89:195). This class is a continuation of EMT-B Part I. It includes a trauma module, infants and children module, and operations module. Twelve hours of clinical in the hospital is also included. (20-14-12)

Study Abroad

Through NIACC's participation in the Iowa Community College Study Abroad Consortium, students have the opportunity for foreign study while remaining full-time NIACC students. Currently, the program is offered in London during the fall semester. On this program, students have the opportunity to earn 12 or more credit hours. Except for a mandatory Humanities offering, British Life and Culture (89:157 - 3 s.h.), course offerings are determined by the expertise of the instructor accompanying the students in any given semester.

Enrich Program

This program is recommended to students who do not meet the prerequisites for developmental courses. It is intended to lead to a one year General Studies diploma. Credit earned will not satisfy the requirements for an Associate degree and will not be used in calculating the cumulative grade point average for graduation. All courses in the program have been designed as pass/no pass.

30:048 Communication Through Reading and Writing, Enrich (4 s.h.) Prerequisite: Consent of instructor. This Enrich course will focus on strategies that enable adult students to understand and apply reading and decoding skills. Students will also learn strategies that enable them to express ideas clearly and correctly in writing, and to successfully apply these writing and reading skills in their daily lives, at work, and in leisure activities. (60-0)

30:049 Communication Through Reading and Writing II (4 s.h.) Prerequisite: Consent of instructor. This Enrich course will focus on strategies that enable adult students to understand and apply reading skills and to express ideas clearly and correctly in writing. Applications will be in daily life, at work, and in leisure activities. This course is designed to follow Communication Through Reading and Writing I, Enrich (30:048) but may be taken without that prerequisite. (60-15)

40:038 Enrich Math I (2 s.h.) Prerequisite: Consent of instructor. This Enrich course will focus on strategies that enable adult students to understand and apply mathematics in their daily lives, at work, and in their leisure hours. (30-0)

40:039 Enrich Math II (2 s.h.) Prerequisite: Consent of instructor. This Enrich course will focus on strategies that enable adult students to understand and apply mathematics in

their daily lives, at work, and in their leisure hours. Focus will be on partials, both in decimal and fraction form. (30-0)

89:020 Civic Responsibility (3 s.h.) Prerequisite: Consent of instructor. This Enrich class is designed to teach the economic philosophy and structural construction of the American government. Stress will be placed on the citizen's role within that government. Economics and the individual consumer will be considered. (45-0)

89:030 Personal Management (3 s.h.) Prerequisite: Consent of instructor. This Enrich course will examine concerns faced by students as members of modern society. It is designed to assist students in making sound decisions concerning physical, mental, and financial health, and to use nonworking hours in a creative way. Critical thinking skills will be emphasized as students analyze written documents, including those financial, legal, and medical. (45-0)

89:040 Skills for Job Seekers (3 s.h.) Prerequisite: Consent of instructor. This Enrich course is designed to assist the student in structuring a job search. Written materials will include applications, resumes, and cover letters. Interviewing skills will be developed. Job-keeping skills will be emphasized. (45-0)

89:041 Career Decisions (3 s.h.) Prerequisite: Consent of instructor. This Enrich course is designed to assist students in determining realistic career objectives and assessing personal strengths. Curriculum focuses on self-management skills, time, and organizational concepts. The class stresses both written and verbal communication skills. (45-0)

Quotable Quote:

Failure is the condiment that gives success its flavor.
-Truman Capote

Student Handbook

STUDENT HANDBOOK

ACADEMIC/DISCIPLINARY POLICIES

Academic Probation/Suspension 184
Alcohol Policy 187
Fresh Start 184
Grade Appeal Process 185
Instructor Complaint Policy 186
Sexual Harassment Policy 186
Student Conduct Code 187
Technology Policy 192

COLLEGE SERVICES

Bookstore 194
Bus Service 194
Cafeteria 194
College Operating Hours 194
Library 194
Lost and Found 195
Parking and Security 195

EMERGENCY PROCEDURES

General 196
Reporting 196
Fire 196
Tornado 196
Inclement Weather 196
Safety Awareness 197

STUDENT SERVICES

Admissions
- Applying to the College 199
- International Students 199
- Orientation 199

Collegiate Athletic Program
- Coaches 200
- Athletic Conference 200
- Eligibility 200
- Athletic Scholarships 200

Counseling
- Academic Advising 201
- Career Counseling 201
- Special Needs 201
- Student Health 201
- Student Support Services 204
- Substance Abuse Prevention 204
- Vocational Rehabilitation 204

Financial Aid and Scholarships
- Federal and State Financial Aid 205
- Grants/Work Study/Loans 205
- Satisfactory Progress for Financial Aid Recipients 206
- Scholarships 207
- Veterans' Benefits 209

North Iowa Career Center 210
On-Campus Housing 211

Registration and Records
- Academic Transcript 212
- Changes in Registration 212
- Classification of Students 212
- Credits and Grading 212
- Honors Program 213
- Credit by Examination 214
- Degree Requirements 214
- Family Education Rights and Privacy Act (FERPA) 217
- Graduation 219
- Payment Plans/Policies 219
- Registration Process 220
- Residency Policy Guidelines 220
- Title IV Recipients Refund and Repayment Policy 221
- Tuition and Fees 222
- Tuition Refund 223

Student Clubs 224
Student Organizations 226
Student Senate 227

ACADEMIC/DISCIPLINARY POLICY

Academic Probation/Suspension

Probation: A student who does not attain at least a 1.50 cumulative grade point average will be placed on institutional academic probation by the Registrar. Unless specific corrections are made, probation may be followed by suspension.

Suspension: A written notice to a student of denial for further participation and/or registration in the College until a specified future date.

A student not meeting the minimum standard (1.5 GPA) for two consecutive terms may be notified by the Registrar that he/she is suspended for a 16-week term unless a successful appeal is filed with the Vice President for Student Services or designee.

Any student placed on probation or suspension is highly encouraged to visit with the NIACC counseling staff for assistance.

Fresh Start

A. Please read the following sections carefully before deciding if a "Fresh Start" is right for you at this time.

1. The "Fresh Start" program is intended for students who change to a new program of study after receiving unsatisfactory grades in a previous program or for students who have performed poorly at NIACC. It allows the student cumulative grade point average (GPA) to be recomputed.

2. The "Fresh Start" is a <u>one-time-only option</u>. If a student experiences difficulty in a new program or subsequent semester, he/she may <u>not</u> apply for a second "Fresh Start."

3. The student must be currently enrolled in credit classes at North Iowa Area Community College pursuing a degree, diploma, or certificate, and have successfully completed a minimum of 12 credits with a term grade point average of 2.00 or better and a 2.00 cumulative grade point average excluding the Fresh Start semester(s).

4. "Fresh Start" may span a maximum of two consecutive semesters of college credit courses. Students may not choose specific classes to be waived. **<u>All courses</u>** within the requested fresh start term would be amended, if approved.

5. Courses are <u>not</u> removed from the transcript by a "Fresh Start." If a "Fresh Start" is approved, all courses in the approved term(s) will receive the grade symbol "O" for grade requital. Grades earned for the term(s) specified in the request will not be included in the computation of the student's cumulative grade point average.

6. Students may petition for a "Fresh Start" for courses taken at least three years prior to the time of appeal.

7. Since the "Fresh Start" program is a North Iowa Area Community College policy only, it will generally not affect decisions made by grantors of financial aide or athletic eligibility or transfer institutions. Such outside agencies may still consider the complete transcript, not just the "Fresh Start."

B. If you decide that you wish to pursue a "Fresh Start" in view of the previous information, or if you are not yet certain if this is the right option for you at this time, you may request a transcript from the Records Office and make an appointment to meet with a counselor or advisor to discuss this matter.

C. When you have obtained your transcript and written your letter of appeal addressing your previous situation and how that situation has changed so that you will be more successful academically, meet with the counselor or advisor. He/she will be able to look at your records and your letter to go over the process with you to help you decide if you should proceed with the "Fresh Start." If you decide not to proceed, no further action is required.

D. If you decide to proceed with the "Fresh Start" petition, the counselor or advisor should complete Section II of the petition. The counselor should sign and date this section.

E. The complete petition should be sent to:

Registrar
North Iowa Area Community College
500 College Drive
Mason City, IA 50401

F. The Records Office will proceed as follows when the decision is received:

1. Amend the student's academic record based on the semester(s) indicated by the decision. The grades for the appropriate semester are amended to an "O" meaning grade requital which automatically is not calculated in degree audit.

2. Add the comment line, "Fresh Start Term," after the appropriate semester(s) on the academic transcript.

3. Retain documentation of the decision in the Records Office for at least five years.

G. The student has the right to request reconsideration of the decision. Such an appeal must be made in writing to the Vice President for Student Services within thirty (30) days after the decision was communicated to the student. If the student wishes to appear in person before a Committee to support his/her request, the student should indicate that fact in the letter.

Grade Appeal Process

Introduction

The following procedures are available for review of alleged capricious grading, and not for review of the judgement of an instructor in assessing the quality of a student's work. Capricious grading, as the term is used, is defined as one or more of the following:

1. the assignment of a grade to a particular student on some basis other than the announced standards for the course;
2. the assignment of a grade to a particular student by more exacting or demanding standards than were applied to other students in that course;
3. the assignment of a grade by a substantial departure from the instructor's standards announced during the first part of the term.

The assessment of the quality of a student's academic performance is one of the major professional responsibilities of College faculty members and is solely and properly their responsibility. It is essential for the standards of the academic programs at North Iowa Area Community College and the integrity of the certificates, diplomas, and degrees conferred by this College that the professional judgements of faculty members not be subject to pressures or other interference from any source.

It is necessary, however, that any semester grade be based on evidence of the student's performance in a course, that the student have access to the evidence, that the instructor be willing to explain and interpret the evidence to the student, and that a grade be determined in accordance with announced guidelines. These guidelines should be announced in each class within the first quarter of the semester term.

At any time, a student may seek the assistance of a counselor from Student Services regarding the procedure in appealing alleged capricious grades or the merits of a particular case.

Appeal Procedures

A student who believes a semester grade is capricious may seek clarification and, where appropriate, redress as follows:

1. The student shall confer with the instructor, informing the instructor of questions concerning the grade, and seeking to understand fully the grounds and procedures the instructor has used in determining the grade. The aim of such a conference is to reach mutual understanding about the grade, the process by which it was assigned, and to correct errors, if any, in the grade.
2. If, after consultation with the instructor, the student believes that a grade is capricious, the student shall confer with the division chair, who shall consult and advise with both the instructor and student separately or together, in an effort to reach an understanding and resolution of the matter.
3. If steps one or two do not resolve the problem, the student may submit a petition in writing to the Academic Appeals Committee. This petition must be submitted through the Vice President for Student Services not later than the end of the fourth week of the following semester, excluding the summer terms. For students involved in programs where the grade will not allow progression, a revised time plan may be developed so the appeal can be heard prior to the next semester.
4. On the basis of a consideration of the student's petition, the instructor's response, and interviews by the chairperson of the Academic Appeals Committee with the student and the instructor, the Academic Appeals Committee shall conduct an inquiry which may include a meeting with the student and the instructor separately or together and ascertain and consider relevant facts. The Committee should make one of the following decisions:
   a. That the grade was not assigned capriciously and shall stand as assigned.
   b. That the grade may have been assigned capriciously and merits further consideration.

   The committee shall, as a result of its consideration, recommend an appropriate grade.
5. The decision of the Academic Appeals Committee will be communicated to the student by the chairperson of the committee.
6. If the student does not accept the decision of the Academic Appeals Committee, the appeal will then be forwarded to the Vice President for Academic Affairs for review. The Vice President shall review the case and shall make one of the following decisions:
   a. Acceptance of the Academic Appeals Committee decision.
   b. Request for the Academic Appeals Committee to reconsider its decision.

   The Vice President for Academic Affairs shall review the case and consult with the instructor and the student either individually or collectively. On the basis of the review and the consultation, the Vice President for Academic Affairs (a) may direct the instructor to make the grade change and that decision shall be final, or (b) may request the Academic Appeals Committee to reconsider its decision. After a reconsideration by the Committee, its recommendations regarding the student's grade is final. Should the reconsideration of the Academic Appeals Committee involve a change in grade, the Vice President for Academic Affairs shall direct the instructor to make the grade change. In the event the instructor declines to make the grade change, then the Vice President for Academic Affairs shall authorize the Registrar to make the grade change, and such a decision shall be final.

7. If the student does not accept the decision of the Vice President for Academic Affairs, the student may choose to appeal to the President of the College.

NOTE: At all points of decision, the student, the instructor, the division chair, and any parties involved shall be notified promptly and no later than one week after each decision has been reached.

Composition of Academic Appeals Committee
The committee shall consist of two full-time faculty members, one division chair, one Student Services staff member, and two full-time students selected by the College's Student Senate. The committee will be chaired by the Vice President for Student Services.

Instructor Complaint Policy

Students who have a complaint about an instructor should first talk to that instructor to express his/her concern and seek a resolution to the complaint. If the complaint is not resolved to the student's satisfaction (or if the student does not feel comfortable talking to the instructor), he/she may contact the program leader (or department chair if no program chair exists). If the complaint is not resolved at this level, the Vice President for Student Services should be consulted, who will provide confidential counsel on how to resolve the complaint, and/or identify the proper steps to follow should the student choose to file a formal written complaint. Depending on the nature of the written complaint, it will be handled either by the Vice President for Student Services or the Vice President for Academic Affairs.

Sexual Harassment Policy

Introduction
As an educational institution, the College serves as a model agency in the community. Sexual harassment subverts the mission of the College, threatens the well-being of students, faculty and staff, and will not be tolerated.

Staff in positions of authority need to be sensitive to the potential for conflicts of interest in personal relationships with students or subordinate employees. When significant disparities in age or authority are present between two individuals, questions about professional responsibility and the mutuality of consent to a personal relationship may well arise.

Definition of Sexual Harassment
The Equal Employment Opportunity Commission characterizes sexual harassment as "unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature." Such behavior is illegal when:

A. Submission to such conduct is made either explicitly or implicitly a term of condition of status as a student or employee;

B. Submission to or rejection of such conduct by an individual is used as the basis for decisions affecting such individual's employment or academic progress; or

C. Such conduct has the purpose or effect of unreasonably interfering with an individual's work or academic performance or creating an intimidating, hostile, or offensive working or academic environment.

Sexual harassment can also take place between peers. Any time questionable behavior takes place, whether during work, class, or other college functions, it should be reported.

Sexual harassment takes many forms, for example:

- repeated and unwanted staring, comments, or propositions of a sexual nature
- subtle pressure for sexual activity
- sexist remarks about a person's clothing, body, or sexual activities
- unnecessary touching, patting, hugging, or brushing against a person's body
- direct or implied threats that submission to sexual advances will be a condition of employment, work status, grades, or letters of recommendation
- physical assault

Policy

A. Because staff and students at North Iowa Area Community College have a right to be free from sexual harassment by colleagues, supervisors, or instructors, the College does not condone actions or words which a reasonable person would regard as sexually harassing or coercive. This means that the following behaviors will not be tolerated:

1. Abusing the dignity of an employee or student through insulting or degrading sexual remarks or conduct;

2. Threats, demands, or suggestions that an employee's work status or a student's academic progress is contingent upon his/her toleration of or acquiescence to sexual advances.

B. The relationship between faculty and students is central to the mission of the College. It is essential to establish that the standard of expected conduct in that relationship goes beyond the normal description against sexual harassment. What might appear to be consensual, even to the parties involved, may in fact not be so. Recent court cases tend to support this view.

Faculty members exercise power over students, whether in giving them praise or criticism, evaluating them, making recommendations for their further studies or their future employment, or conferring any other benefits on them.

Therefore, the College will view it as unethical and inappropriate if faculty members engage in amorous relations with students enrolled in their classes or subject to their supervision, even when both parties

appear to have consented to the relationship. Exceptions might be previous and ongoing relationships, such as husband and wife.

C. Education efforts are essential to the establishment of a campus environment that is as free as possible of sexual harassment and in which highest standards of conduct in consensual relationships are observed. There are at least four goals to be achieved through education:

1. Ensuring that all victims (and potential victims) are aware of their rights.
2. Notifying individuals of conduct that is prohibited.
3. Informing administrators about the proper way to address complaints of violations of this policy.
4. Helping educate the insensitive about the problems this policy addresses.

Courses of Action

A. Students who feel that they have been the subjects of such harassment should advise the Vice President for Student Services.

B. Staff members should advise their immediate supervisor, the Director of Human Resources, or the Vice President for Administrative Services.

C. When informed or made aware of a possible harassment situation, the President will conduct an investigation utilizing the procedures outlined in the guidelines for "Handling Complaints Regarding Employees."

Student Conduct Code

Students are expected to conduct themselves in a responsible manner. Students who enroll accept our policies, regulations, and operational procedures. Student behavior, which after due process is found to be disruptive to classes or to destroy the rights of others or property, may result in disciplinary probation or suspension.

I. Statement of General Policy and Definitions

It is expected that each student will obey Federal, State, and local laws; will show respect for properly constituted authority; and will exhibit and maintain integrity and honor in all manners related to the college.

Definitions: In this code, unless the context otherwise requires:

a. "Board" means the NIACC Board of Directors.
b. "Class day" means a day on which classes are regularly scheduled.
c. "College property" or "College facilities" means property, real or personal, owned, leased, controlled, or managed by the college.
d. "Complaint" is a written statement which identifies an alleged violation and which sets forth the facts which constitute the violation. A complaint shall be prepared by the Vice President for Student Services and shall include a summary of the expected testimony of each witness in support of the allegation.
e. "Vice President" means the Vice President for Student Services.
f. "Faculty" means instructional employees.
g. "Major violation" means one which can result in suspension or expulsion from the College or denial of degree.
h. "Minor violation" means one which can result in any disciplinary action other than suspension or expulsion from the College or denial of degree.
i. "Student" means any person enrolled at the College, whether on a part-time or full-time basis, and includes a person accepted for admission to the college.
j. "President" means the President of the College.
k. "Violation" means any conduct, act, or omission to act, which violates a provision of this code, or a regulation, policy or administrative rule of the College or of the Board.

II. Standards: conduct which is contrary to any of the following may subject the student to disciplinary action and shall constitute a violation.

A. Student Identification: Students will be issued an I.D. card to be used for identification when attending college-supported, sponsored or supervised activities and in checking out materials from the library. A charge will be made to cover the cost of replacement. Misuse of an I.D. Card may result in disciplinary action and shall constitute a violation.

B. Use of facilities: A student or a student group or association shall comply with established administrative rules and board policies in planning for the use of facilities and in using the facilities.

C. Speech and Advocacy: Discussion and expression of all views are permitted on college property, provided that:

a. peace and order are maintained.
b. college-sponsored, supported, and supervised activities, including instruction are not disrupted.
c. student activities, whether individual or group, are not disrupted.
d. state, federal, and local laws are not violated.

Individual students and campus organizations may invite speakers of their own choosing, provided a policy of the college or board or this code is not violated.

D. Student Conduct: The following shall be subject to disciplinary procedures:

a. The unlawful manufacture, distribution, dispensation, possession or use of illicit drugs and alcohol on college property or as a part of any college-sponsored activity. Note: When college-sponsored events take place in states or countries where more lenient laws exist, the legal age

shall be defined as 21. College sponsors of off-campus events have the right to develop and enforce more stringent rules (such as no alcohol).

b. Dishonesty, including but not limited to: cheating; plagiarism; knowingly furnishing false information to the college, forgery, alteration, or misuse of college documents or records.

c. Disruption of the orderly process of activities of the college, including unauthorized entry into, obstruction of, or occupation of any college property, and including obstruction of entry or exit to any college property.

d. Threatening, harassing, physically abusing, or endangering in any manner the physical or mental health and safety of any person.

e. Theft, willful destruction, damage or misuse of any property belonging to or in the possession of the college or belonging to or in possession of any person.

f. Illegal possession or use of any firearm, explosive, dangerous chemical, or other weapon.

E. Financial Transactions with the College: The following shall be subject to disciplinary procedures and shall constitute violations:

a. Failure or refusal to timely pay a debt owed the college or NIACC Dormitories, Inc.

b. Presentation or delivery of any check, draft, or order to the college or to NIACC Dormitories, Inc., with intent to defraud.

c. Failure to pay the College the amount of a check, draft, or order, on or before the fifth class day after the day the Business Office sends written notice that the drawee has rightfully refused payment on the check, draft, or order.

III. Disciplinary

A. Administrative

1. Investigation and Complaint

a. When the Vice President for Student Services receives information indicating that a student has committed a violation, the Vice President shall investigate the alleged violation. After preliminary investigation, the Vice President may:

1. Dismiss the allegation as unfounded, either before or after conferring with the student;

2. Proceed administratively as provided below; or

3. Prepare a complaint for use before the Student Conduct Committee (hereinafter designated SCC).

b. The President may take interim disciplinary action, including, but not limited to, suspending the right of the student to be present on the campus and to attend classes, and restricting or altering the other privileges granted the student, when in the opinion of the President the interests of the College would best be served.

2. Notice to Appear

a. A student may be ordered to appear before the Vice President in connection with an alleged violation by a notice from the Vice President personally served upon the student; provided, that nothing herein shall prevent the Vice President and student from agreeing informally to meet to discuss the alleged violation.

b. The notice shall direct the student to appear at a specified time and place. The notice shall briefly describe the alleged violation and shall state whether the Vice President intends to handle the allegation as a minor or major violation.

c. The Vice President may place on disciplinary probation a student who fails without good cause to comply with a notice ordering appearance, or the Vice President may submit the matter to the Student Conduct Committee, or to the President.

3. Disposition

a. When the student appears before the Vice President whether informally or pursuant to notice, the Vice President shall advise the student of his rights as set forth in this code.

b. A student may refuse administrative disposition of the alleged violation, and upon refusal, is entitled to a hearing before the Student Conduct Committee. The student must serve the Vice President with a written request for a hearing on or before the third day following the refusal to accept administrative disposition. The Vice President shall then inform the President that a request for a hearing has been made. A student's failure to timely make a written request for a hearing shall constitute an acceptance of administrative disposition, except a signed acknowledgment as provided in IIIA3c shall not be required.

c. If a student accepts administrative disposition, then the student shall sign an acknowledgment which states that the student understands the following:

1. The nature of the violation.

2. That the student has the right to a hearing at which the allegations must be proved by clear and convincing evidence.

3. The penalty that may be or which will be imposed and its implications.

4. That the student waives his/her right to appeal.

d. The Vice President shall prepare an accurate, written summary of each administrative disposition and shall deliver a copy to the student, and, if the student is a minor, shall mail a copy to the parent or guardian of the student.

B. Student Conduct Committee (SCC)

1. Composition and Organization

a. The SCC shall be composed of three administrative officers of the College other than an officer under the

supervision of the Vice President. The members of the committee shall be appointed by the President.

b. The SCC shall elect a chairperson from its members. The chairperson shall conduct the hearing and shall rule on the admissibility of evidence, motions, and objections; the chairperson's decision may be overridden on a vote of the committee. Each member of the committee, including the chairperson, is eligible to vote at the hearing.

c. Chairperson: The chairperson shall set the date, time, and place for the hearing and shall issue subpoenas and subpoenas duces tecum upon the request of the Vice President or the student.

d. The Vice President shall represent the college before the SCC and shall represent evidence to support an allegation of a violation. The Vice President and/or the student may be assisted by legal counsel.

2. Notice

a. The SCC chairperson shall have written notice served upon the student and the Vice President, which notice shall set forth the date, time, and place for the hearing, as well as the nature of the alleged violation. The hearing date shall be not less than five (5) nor more than ten (10) class days after service of the notice. If student is under 18 years of age, a copy of the notice shall be sent by certified, return receipt requested, U.S. mail to the parents or guardian of the student.

b. The chairperson may for good cause postpone the hearing.

c. The SCC may hold a hearing at any time if the student has actual notice of the date, time, and place of the hearing, and the student makes written acknowledgment of said actual notice and written consent to the conducting of a hearing.

d. The notice shall direct the student to appear before the SCC on the date and at the time specified, and shall advise the student that he/she has a right to each of the following:

1. To a private hearing;
2. To the presence and assistance of legal counsel;
3. To the presence of his parents and/or legal guardian;
4. To have the witnesses against him appear at the hearing and to confront and cross-examine each of them;
5. To cause the committee to order witnesses to appear on his behalf and to require the production of documentary and other evidence possessed by the College, and to offer evidence and argue in his own behalf;
6. To have a privately-paid stenographer present at the hearing and/or to record the hearing by electronic means;
7. To appeal the faculty-student board of review;
8. To remain silent during the hearing and to not have his silence used against him.

e. The SCC may suspend a student who fails without good cause to comply with a notice sent under these provisions, or, at its discretion, the SCC may proceed with the hearing in the student's absence.

f. The Vice President shall have the right to have a stenographer present at the hearing and/or to record the hearing by electronic means.

3. Preliminary Matters

a. Alleged violations arising out of the same transaction or occurrence, or out of the same series of transactions or occurrences, against more than one student, may be heard together, or, either at the option of the committee or upon request by one of the students or the Vice President, separate hearings shall be held. Alleged violations by one student arising out of the same transaction or occurrence or out of the same series of transactions or occurrences shall be heard together. Alleged violations by one student arising out of unrelated transactions or occurrences may be heard together with the written consent of the student.

b. At least three (3) class days before the hearing date, the student shall in writing furnish the SCC with:

1. The name of each witness he wants ordered to appear and a description of all evidence possessed by the College which he wants produced;
2. Any objection that, if sustained, would postpone the hearing;
3. The name of legal counsel, if any, who is to appear with him;
4. A request for a private or separate hearing and the grounds for such request;
5. A request to exercise any of the student's other rights stated in the notice.

c. When the hearing is held by consent of the student less than 5 days after service of notice or for other good cause shown, the student may submit the information described in paragraph b. immediately above at any time before the hearing terminates.

d. An objection, which if sustained would require the dismissal of the complaint, may be submitted at any time prior to the termination of the hearing.

4. Procedure

a. The hearing shall be informal and shall be open to the public unless otherwise requested by the student in accordance with IIIB3b. If the hearing is to be private, the members of the student's immediate family, if requested by the student, may attend.

b. The hearing committee shall proceed generally as follows:

1. The chairperson of the SCC shall read the complaint;

2. The chairperson of the SCC shall inform the student of his rights, as stated in the notice of hearing;

3. The Vice President shall present evidence in support of the alleged violation;

4. The student shall present his/her defense;

5. The Vice President and the student may present rebuttal evidence, and shall have the right to make argument. The Vice President shall have the right of the opening and the closing argument;

6. The committee will vote the issue of whether there has been a violation and shall inform the student and the Vice President of their finding. If the committee finds a violation, the student and the Vice President shall have the right to submit evidence and argument as to the proper penalty;

7. The committee shall then determine the penalty, if any;

8. The committee shall state in writing each finding of a violation and the penalty determined. Each committee member concurring in the finding and penalty shall sign the statement. The committee shall include in the statement its reasons for the finding and penalty.

5. Evidence

a. Rules of evidence shall not apply to hearings before the SCC, and the SCC may admit and give effect to evidence that possesses probative value and is commonly accepted in the conduct of a reasonable person. The SCC shall not consider and may exclude irrelevant, immaterial, and unduly repetitious evidence. The SCC shall recognize as privileged communications between a student and a member of the professional staff, counseling center, or the Office of the Vice President for Student Services where such communications were made in the course of performance of official duties and when the matters discussed were understood by the staff member and the student to be confidential, as well as those communications which are privileged by law. Committee members may freely question witnesses.

b. A student is presumed innocent until the Vice President has proved a violation by clear and convincing evidence.

c. All evidence offered during the hearing shall be made a part of the hearing record. Documentary evidence may be included in the form of copies, extracts or abstracts, or by incorporation by reference. Real evidence may be photographed or described.

6. Record

a. The hearing record shall include the student's written notice of appeal, the complaint, all tangible evidence admitted at the hearing, written motions, pleas, and any other materials considered by the committee and the committee's written findings, decisions, and determinations, a transcript if prepared by a certified court reporter, and an electronic recording of the proceedings if the same is delivered to the chairperson upon the termination of the hearing.

b. If notice of appeal is timely given as hereinafter provided, the chairperson of the SCC shall deliver the record to the Board of Review, with a copy to the student and copy to the Vice President on or before the tenth class day after the notice of appeal is received.

C. Faculty-Student Board of Review

1. Right to Appeal

a. In those cases in which the disciplinary penalty imposed was as prescribed in IV A (6) through (11), the student may appeal the decision of the SCC, or the decision of the President in an interim action to the faculty-student Board of Review. Disciplinary actions taken under IV A (1) through (5) cannot be appealed beyond the SCC. A student appeals by giving written notice to the chairperson of the SCC on or before the third class day after the day the decision or action is announced. This notice shall contain the student's name, the date of the decision or action, the name of his legal counsel, if any, and a simple request for appeal.

b. Notice of appeal timely given suspends the imposition of penalty until the appeal is finally decided.

2. Board Composition

a. The President shall appoint Boards of Review to hear appeals timely made under this code. Each board shall have three faculty members and two students appointed by the President in alphabetical rotation from available members of the review panel. A chairperson of each Board of Review shall be designated by the President. The duties and powers of all board members shall be the same as those of the SCC, except where otherwise provided. All matters shall be decided by simple majority vote.

b. The review panel shall consist of ten (10) members, selected as follows:

1. Five (5) faculty members shall be appointed for three-year staggered terms by the President, who may consider but who is not bound by the recommendation of the president of the faculty association.

2. Five (5) students shall be appointed by the President of the College for one-year terms. Student members must have an overall 2.00 average on all college work attempted at the time of their selection to serve on the review panel and must not have a disciplinary case pending. The President may consider nominations submitted by faculty, staff, and students.

3. Consideration of Appeal

a. The Board of Review shall consider each appeal on the record of the hearing before the SCC. For good cause shown, the board may remand to the SCC to consider and hear newly discovered evidence.

b. The chairperson of the Board of Review shall give written notice to the student and the Vice President of the time, date, and place of the hearing which shall be held not more than 10 days after the receipt of notice of appeal, unless for good cause shown.

c. The Board of Review will hear oral argument and will accept written briefs from the student and Vice President.

d. The Board of Review may modify or set aside the finding of violation, penalty, or both, if the substantive rights of the student were prejudiced because the SCC's finding of facts, conclusions or decision were:

1. In violation of federal, state or local law, board or college policy or regulation or this code.

2. Clearly erroneous in view of the evidence contained in the record from the hearing before the SCC.

e. The Board of Review may not increase a penalty assessed by the SCC.

4. Petition for Administrative Review

a. A student may appeal the decision of the Board of Review by submitted a petition for review to the President within three days of the decision of the board of Review. A student may submit a similar written petition to the Board of Directors within three days of an adverse ruling by the President, but the board need not consider such petition. The President shall automatically review every penalty of expulsion.

b. A petition for review is in formal but shall contain, in addition to the information required by IIIc1a notice of appeal, the date of the Board of Review's action of the student's appeal and the student's reasons for disagreeing with the Board of Review's decision.

c. The President or the Board of Directors in their review may take any action that the SCC is authorized to take. They may receive written briefs and hear oral argument during their review.

IV. Penalties. The Vice President for Student Services, under IIIA or the Student Conduct Committee, under IIIB, or the Faculty Student Board of Review, under IIIC, may impose one or more of the following penalties for a violation:

A. **Warning** - a written reprimand to the student to whom it is addressed.

B. **Warning probation** - a warning indicating that further violations may result in suspension. Warning probation may be imposed for any length of time up to one calendar year and the student shall be automatically removed from probation when the imposed period expires.

C. **Disciplinary probation** - a warning indicating that further violations may result in suspension. Disciplinary probation may be imposed for any length of time up to one calendar year and the student shall be automatically removed from probation when the imposed period expires. Students will be placed on disciplinary probation for engaging in activities such as but not limited to the following: being convicted of public intoxication or simulated intoxication, misuse of I.D. Card (minor violation), creating a disturbance in or on campus facilities.

D. **Withholding of transcript or degree** - imposed upon a student who fails to pay a debt owed the College or NIACC Dormitories, Inc., or who has a disciplinary case pending final disposition. The penalty terminates on payment of the debt or final disposition of the case.

E. **Bar against readmission** - imposed on a student who has left the College on enforced withdrawal for disciplinary reasons.

F. **Restitution** - reimbursement for damage to or misappropriation of property. Reimbursement may take the form of appropriate service to repair or otherwise compensation for damages.

G. **Suspension of rights and privileges** - an elastic penalty which may impose limitations or restrictions to fit the particular case.

H. **Suspension of eligibility** for official athletic and nonathletic extracurricular activities - prohibits, during the period of suspension, the student on whom it is imposed from joining a registered student organization; taking part in a registered student organization's activities, or attending its meetings or functions; and from participating in an official athletic or non-athletic extracurricular activity. Such suspension may be imposed for any length of time up to one calendar year. This disciplinary action will be imposed for engaging in activities such as the following: possessing or using alcoholic beverages on college property in violation of college rules; destroying college property or a student's personal property; giving false information in response to requests from the College; instigating a disturbance or riot; theft; possession, use, sale or purchase of illegal drugs on or off campus; an attempt to incur personal bodily injury which includes taking an overdose of pills or any other act where emergency medical attention is required; and conviction of any act which is classified as a serious misdemeanor, aggravated misdemeanor, or felony under state or federal law.

I. **Denial of Degree** - imposed on a student found guilty of scholastic dishonesty and may be imposed for any length of time, including permanently.

J. **Suspension from the College**- prohibits, during the period of suspension, the student on whom it is imposed from being initiated into an honorary or service organization; from entering college property except in response to a request of the College, and from registering, either for credit or for non-credit, for scholastic work at or through the College.

V. Miscellaneous

A. In the event any portion of this policy conflicts with the laws of Iowa or of the United States, those laws shall be followed.

B. All disciplinary proceedings will become a permanent part of the student's records maintained by the College.

C. Evidence discovered as the result of an illegal search or seizure shall not be considered in determining whether a violation has occurred.

D. Words and phrases herein shall be construed as in the singular or plural number, and as masculine, feminine or neuter gender, according to the context.

Technology Policy

1. Introduction

The technology facilities and services provided by North Iowa Area Community College, including computing, telecommunications and media services, are primarily intended for teaching, learning, student support, and administrative purposes. NIACC encourages staff to make appropriate and innovative use of such resources to further their learning. The use of technology and information resources is governed by all applicable College faculty, staff, and student policies as well as applicable federal, state, and local laws and statutes. It is not the intent of NIACC to provide access to technology and information resources for alumni, the general public, or for private use.

NIACC provides a number of computer labs to the general College population for course work and related educational endeavors. In addition, students enrolled in credit classes are offered a temporary personal Internet account, renewable each semester they are enrolled at NIACC. The policies outlined here apply to the use of these accounts.

2. Staff Access to Institutional Data

The value of data as an institutional resource is increased through its widespread and appropriate use; its value is diminished through misuse, misinterpretation, or unnecessary restrictions to its use.

Access to NIACC institutional data - the permission to view or query institutional data - should be granted to all eligible employees of NIACC for legitimate College purposes. Network accounts (Usernames) will be administered by NIACC Technology Services for all staff.

Data users will be expected to access institutional data only in their conduct of College business, to respect the confidentiality and privacy of individuals whose records they may access, to observe any ethical restrictions that may apply to data to which they have access, and to abide by applicable laws and policies with respect to access, use, or disclosure of information. Expressly forbidden is the disclosure of limited-access or internal institutional data or the distribution of such data in any medium except as required by an employee's job responsibilities. Also forbidden is the access or use of any institutional data for one's own personal gain or profit, for the personal gain or profit of others, or for political purposes.

Personal usernames and passwords should not be shared or used by another person. Violators will be subject to disciplinary action. Computer resources - both hardware and files stored on computers or servers are considered to be the property of the College.

3. Copyright

NIACC recognizes and adheres to U.S. and International copyright laws, software licenses, and intellectual property rights associated with both print and non-print materials.

NIACC forbids, under any circumstances, the unauthorized reproduction of software, or use of illegally obtained software. Using College equipment to make illegal copies of software is prohibited. NIACC employees and students who violate this policy are subject to disciplinary action. Individuals who violate U.S. Copyright law and software licensing agreements also may be subject to criminal or civil action by the owner of the copyright.

4. Internet Access

The Internet is an electronic communications system connecting millions of computers and individual users from all over the world. Internet access is coordinated through a complex association of government agencies, state, and regional networks. Smooth operation of the network relies on the proper conduct of all of its end users.

With access to computers and to people from all over the world, it is possible that users may access materials that might not be considered to be of educational value, may be controversial, offensive, or inaccurate. Any and all access and use of information or materials obtained via the Internet is at the users own risk. NIACC does not accept any responsibility for the accuracy and/or quality of information obtained through its Internet services.

It is expected that each NIACC employee and student will follow ethical and professional guidelines and abide by College policies when using College

computer equipment and services to access the Internet.

5. E-Mail

Electronic mail or E-mail accounts will be available to all NIACC staff, students enrolled in credit classes, and in certain circumstances temporary accounts for students in Continuing Education classes. E-mail can be used internally for campus communications or via the Internet for electronic communications around the world. Appropriate use of E-mail for College-related activities will be expected. While electronic messages being sent or stored on networks or servers will be considered by NIACC to be private communications and the responsibility of the staff member or student, users should be aware that it is possible for a hacker or a network administrator at any point along the worldwide Internet communication path to intercept and view documents. NIACC will not be held liable for individual use of electronic mail or use of the Internet.

6. World Wide Web

The World Wide Web (WWW or Web) provides and opportunity for NIACC to have a presence in the Internet community for public relations, to provide information, and for educational purposes. NIACC's "Home Page" (or pages) on the Web represent the College's programs, policies, and image to the world. Development of Web Home Pages will be encouraged by NIACC departments, staff, and students (as part of an instructional activity), and should be maintained by each to remain current, accurate, and to appropriately represent the College. NIACC will recommend standards for NIACC Web pages on the Internet, but will not be liable for the content of personal web pages.

7. Responsible Use:

The user bears the primary responsibility for the material that he or she chooses to access, send, or display.

Respect the rights of others by complying with all College policies. Remember that you are representing the College in all of your communications.

Use only computer IDs or accounts and communications facilities which you are authorized to use, and use them for the purposes for which they were intended. Do not let others use your Username or password.

Students will be responsible for maintaining their own files that are stored on network drives including deleting files no longer in user, and copying files that they want to save to removable media (diskettes).

Staff will be responsible for maintaining their own files that are stored on network drives including deleting files no longer in use. Do not use up valuable network storage resources with unnecessary and outdated files.

8. Unacceptable Use:

The following unacceptable activities may result in suspension or revocation of this privilege, disciplinary action, as well as possible legal and civil action by the copyright owner and/or the College.

a. Unauthorized copying of any software (including operating systems, programs, applications, databases, or code) which is licensed or protected by copyright.

b. "Computer hacking" (i.e. unwanted or unsolicited entry into a computer system).

c. Knowingly introducing a "computer virus" to a computer or network (i.e. a program - either harmless <u>or</u> damaging - which attaches itself to another program and/or has the capability to reproduce in order to infect other computers).

d. Unauthorized access, willful damage, or misuse of systems, applications, databases, code, or data.

e. Use of the campus network, the Internet, ICN, or other telecommunications or data networks for actions that constitute harassment (as defined by the NIACC Harassment Policy). This includes introducing inappropriate materials to the network, displaying for others to view or hear, or printing on College printers.

f. Using the network or College equipment to conduct personal business for one's own personal gain or profit, for the personal gain or profit of others, for solicitation of services, or for political lobbying or campaigning.

g. Allowing others to use your personal Username and password to access campus networks or the Internet.

The above items in this section are all unacceptable activities.

9. Use of NIACC Computer Labs:

a. First priority use is for scheduled classes and workshops.

b. Second priority use is for students doing assignments required for classes, or staff preparing for a class.

c. Third priority use is for other academic uses such as exploration of the Internet and E-mail.

Please limit your time at the computers to one hour when there are other students or staff waiting. If you are not doing work specifically for a class, you may be asked to yield your spot to those who have class assignments to complete. Students violating the Technology Policies or the NIACC Student Conduct Code will be asked to leave and may face loss of computer and Internet privileges and/or disciplinary action.

COLLEGE SERVICES

College Bookstore

(Located in the Activity Center)

Regular Business Hours
8:30 a.m. - 3:00 p.m. Monday - Friday

Hours
May 6 - August 16 ..... 9:00 a.m. - Noon
August 19-22 ..... 8:30 a.m. - 3:00 p.m.
August 23 ..... 8:30 a.m. - 6:00 p.m.
August 26 ..... 8:00 a.m. - 7:00 p.m.
January 13 ..... 8:00 a.m. - 7:00 p.m.

Additional Evening Hours
August 27, 28, 29 ..... 5:00 - 7:00 p.m.
September 2 - LABOR DAY ..... CLOSED
September 3, 4, 5 ..... 5:00 - 7:00 p.m.
January 14, 15, 16, 21, 22, 23 ..... 5:00 - 7:00 p.m.

The Bookstore is closed on holidays and weekends.

Check the Bookstore Website at www.niaccbooks.com for complete information and online ordering.

Textbook Refund Policy

Be sure to keep your Bookstore receipt. Observe the Bookstore Refund Policy that you receive at the time of purchase.

Please purchase all needed textbooks by the end of the third week of each semester. The Bookstore will begin returning unsold books to the publishers at that time.

Protect Your Books!

Once you know you are keeping your textbooks, mark them in some manner so you can identify them if they are lost or stolen. (For example: Put your name in the margin of a particular page of each textbook.)

Bus Service

Mason City
Bus service is available between the campus and Mason City, Monday through Friday. The NIACC route is available at 10 minutes after the hour from 6:30 a.m. - 5:30 p.m. at a cost to students of 50 cents. For further information call City Hall at 421-3616.

Cafeteria Hours

Academic Year
Monday - Thursday ..... 7:00 a.m. - 3:00 p.m.
Friday ..... 7:00 a.m. - 2:30 p.m.

Summer Hours
Monday - Friday ..... 9:00 a.m. - 12:30 p.m.

College Operating Hours

General
Buildings are open to normal student traffic:
Monday-Thursday ..... 7:30 a.m. to 9:00 p.m.
Friday ..... 7:30 a.m. to 4:15 p.m.

Administrative Office Hours
Monday-Thursday ..... 7:45 a.m. to 9:00 p.m.
Friday ..... 7:45 a.m. to 4:15 p.m.

Business Office
Monday-Thursday ..... 7:45 a.m. to 5:30 p.m.
Friday ..... 7:45 a.m. to 4:15 p.m.

Summer Hours
Monday-Friday ..... 7:45 a.m. - 4:15 p.m.

Faculty Office Hours
Hours for conference with students are arranged individually by each faculty member. The schedule of office hours is posted on faculty office doors.

Student Services Hours
Counseling Office Hours
Monday through Thursday ..... 7:45 a.m.-6:30 p.m.
Friday ..... 7:45 a.m.-4:15 p.m.

Summer Hours: Contact the Counseling Center to schedule an evening appointment.

Financial Aid Office Hours
Monday - Friday ..... 7:45 a.m.-4:15 p.m.

Records Office Hours
Fall and Spring Semesters:
Monday - Thursday ..... 7:45 a.m.-5:30 p.m.
Friday ..... 7:45 a.m.-4:15 p.m.

Summer Hours
Monday-Friday ..... 7:45 a.m. - 4:15 p.m.

Library

The role of the NIACC Library is to support the curriculum and to provide resources and services to meet the needs of students, faculty, and area residents.

The collection contains 29,000 general volumes, 9,700 nonbook media items, and 6,000 electronic books. Subscriptions include 8 national newspapers, 42 NIAD area newspapers, and 370 periodicals with ten-year holdings of most titles. Also available are files containing up-to-date pamphlets, career information, and social concerns materials.

The library is open 60 hours per week, including 4 evenings. A professional staff of one full-time librarian and one part-time librarian, assisted by three full-time assistants, and six student assistants provide service for all patrons. The library staff will provide assistance at any time. Library orientation sessions are offered at the beginning of each semester to inform students of library resources, policies, and procedures. An online version

of the PowerPoint presentation is also available from the library web page. A library handbook in print and online is also available. A student ID card is required to check out materials. ID's are available in Student Services.

A word-processing computer, a typewriter, and various types of media equipment are available for use in the library. Copying services are provided at a minimal cost.

The library is connected by computer to over 20,000 libraries across the country via the OCLC interlibrary loan system. This brings the libraries of the United States to NIACC students. A number of electronic databases, including a full-text periodical database, newspapers, electronic books, and encyclopedias on the World Wide Web, can be accessed through the library's web page. Many more CD-ROM databases are also available. Cooperative agreements with other Iowa community colleges and area libraries provide additional sources of information.

The library continues to implement the utilization of new technologies to meet the information needs of NIACC students. The library uses an online library catalog and circulation system to provide easy access to resources. Six Internet workstations are available for using the World Wide Web. Two CD-Rom workstations are also available.

Library Hours
Fall and Spring Semesters
Monday - Thursday.....7:30 a.m. - 8:30 p.m.
Friday.....7:30 a.m. - 4:00 p.m.
Closed Weekends

Summer School
Monday - Thursday.....7:30 a.m. - 8:00 p.m.
Friday.....7:30 a.m. - 4:00 p.m.
Closed Weekends

Vacations
Monday - Friday.....7:30 a.m. - 4:00 p.m.
Closed Weekends

CLOSED HOLIDAYS AND SUNDAYS

Borrowing and Returning Library Materials
Any library material that you wish to borrow must be checked out at the circulation desk. The NIACC Library is equipped with a detection system to insure that all materials have been checked out. Materials not checked out will cause a bell to ring and the gate to lock. Occasionally there will be a false alarm with the system.

To return materials, place them in the book return bin at the circulation desk. After hours, use the book drop in the corridor outside the library.

Identification Cards
Your identification card, (I.D.), must be presented to the desk attendant each time you check out any library materials. Before checking out items the first time, a library staff member will add a barcode to your I.D. and activate your account. IMPORTANT: YOU ARE RESPONSIBLE FOR ALL MATERIAL CHECKED OUT ON YOUR I.D. CARD.

Report the loss of an I.D. card to the circulation desk immediately; however, the library does not assume responsibility for material checked out on lost cards.

OVERDUES, FINES AND LOST MATERIALS MUST BE RETURNED AND/OR PAID BEFORE A STUDENT MAY RE-REGISTER IN THE COLLEGE OR BE GIVEN TRANSCRIPTS.

Consult the NIACC Library Handbook for policies and procedures relating to the Library.

Lost and Found

If you lose or find an item on campus, please contact the Reception Desk in the Administration Building and/or the Athletic Office in the Activity Center.

Parking and Security

The Board of Directors of North Iowa Area Community College has adopted parking and traffic regulations in order to: (a) maximize pedestrian and vehicular safety; (b) ensure access at all times for ambulances, fire-fighting equipment, and other emergency vehicles; (c) make the parking facilities of the college available equitably to all of its members. Students are expected to know and comply with state motor vehicle laws and the traffic parking regulations of the college.

Cars parked in violation will be ticketed. Security will ticket cars parked in violation. The Mason City Police Department is authorized to enforce parking regulations regarding fire lanes and handicapped parking.

NIACC reserves the right to remove a parked vehicle when it is in violation of regulations without prior notification and at subject's expense.

Physically handicapped persons parking in spaces designed for the handicapped must display a State of Iowa Handicapped Parking Permit. Information for permits may be obtained from the Vice President for Administrative Services.

EMERGENCY PROCEDURES

General

1. The safety and welfare of students, visitors, and staff is important to the institution. It is each individual's responsibility to engage in the cooperative effort required to establish and maintain a safe environment.

2. Students should become familiar with the buildings in which they have classes and locate the following:
   a. Emergency exits
   b. Fire pull stations
   c. Fire extinguishers
   d. Tornado shelters

Reporting

1. All serious illnesses and injuries should be reported immediately to an instructor or an administrator. This will be followed by the reporting student's participation in completing an accident report form.

2. Accident report forms are filed with the Business Office.

3. In the event of a serious accident or critical illness, the affected student's immediate family may be notified by the President or a designee.

4. Recognizing the student's right to privacy, public media information pertaining to serious or major accidents will be handled through the Community Relations Office.

5. Any crime on campus or violation of the Student Conduct Code should be reported to the Vice President for Student Services.

Fire

1. In case of fire, notify an instructor or administrator. If neither are immediately available, sound the building alarm system by use of the nearest pull station.

2. When the fire alarm is sounded, evacuate the building immediately in a calm and orderly manner. Do not assume a false alarm when the fire alarm system is sounded. The fire alarm system is used for fires only.

3. Make sure you move to a point at least 300 feet from the building. Do not return to the building until permission is granted by appropriate personnel (police, fire, or NIACC staff in charge at the scene).

4. Assist disabled students in evacuating from the building.

Tornado

1. It is important to know the following:
   a. Tornado Watch - Conditions are such that a tornado could develop.
   b. Tornado Warning - Sirens Sound - A tornado has been sighted. Seek shelter immediately.

2. Each building is equipped with a Civil Defense Indoor Warning Radio. When a watch is issued, the person monitoring the civil defense radio will notify staff in that building of the watch and the time period involved. Continuing Education monitors the civil defense radio during the evening hours and notifies the evening supervisors, custodial staff, and appropriate personnel of the watch and time period.

3. In the event of a warning, custodial staff and supervisory personnel will notify students in each building.

4. The recommended tornado shelter areas are posted in each classroom.

5. When the tornado siren sounds, immediately go to the designated shelter areas in a calm and orderly manner. Assist disabled students in getting to a designated shelter.

6. In the event you do not have time to reach a designated area, seek shelter in the lowest level of the building, under sturdy objects and against inner walls. Stay out of rooms with large windows, doors, and large roof spans. Crouch into as small a body position as possible.

7. Unless students are already in their cars and leaving the parking lot, they should not make an attempt to drive away from the tornado. A traffic jam at Highway 122 or 12th Street could cause more bodily injury than seeking shelter on campus or in a ravine. A car is not a safe place during a tornado.

8. "All Clear" will come from custodial or supervisory staff. The siren is NOT used to sound an all clear. Assist the emergency personnel as requested.

9. Generally speaking, modern concrete reinforced buildings, such as most of those on our campus, are usually not heavily damaged by a tornado. These structures will generally provide relatively safe areas during a tornado, providing students stay away from windows and doors. Safest areas are rooms on ground floor opposite to the approach direction of the tornado. Do not use elevators during severe storms or tornado warnings since electrical power may be disrupted.

Inclement Weather

The following guidelines will apply to cancellation or delay of College activities in case of hazardous conditions involving weather.

1. Cancellation or Delay of Classes - The decision to cancel or delay classes will be made by the President or a designee. If classes are delayed or canceled, the message will go to the radio and TV stations listed in this section by 6:00 a.m. No announcement of cancellation or delayed opening via the media by 7:00 a.m. will probably mean that classes will be held as usual that day. (Sometimes, due to staff availability or

changing weather conditions, there may be a delay in making announcements.)

Station	Location	Frequency
KLSS/	Mason City	106.1 FM
KRIB/KYTC	Mason City	1490 AM, 102.7 FM
KGLO/KSMA	Mason City	1300 AM, 98.7 FM
KIA/FOX	Mason City	93.9 FM, 103.7 FM
KCMR	Mason City	97.9 FM
KCHA	Charles City	96 FM, 1580 AM
KLMJ	Hampton	104.9 FM
KIOW	Forest City	107.3 FM
KRIT	Clarion	96.9 FM
KUNY	Cedar Falls	91.5 FM
KAUS	Austin	100 FM, 1480 AM
KIMT TV	Mason City	Channel 3
KAAL TV	Austin	Channel 6

2. Delay of Classes - Students and staff will report to the class normally scheduled for that period of the day and will complete the remainder of the schedule.

3. Cancellation of Classes on Final Day of Class - When classes are cancelled on the last day of class, final grades are determined by a student's scores at that point, or if students wish to try to change their grade, they must contact their instructor(s) to make arrangements to take a final test or hand in papers. Instructors have the discretion to honor such requests in these instances. Such requests need to occur prior to the submission date for final grades being submitted to the Registrar.

4. Community Education Centers - The Garner, Hampton, and Lake Mills Centers and classes are included in the general announcement unless specified differently. The Charles City Center is included in the general announcement of NIACC Mason City campus unless specified differently. The Charles City Center will remain open to serve community groups and receive phone messages even though day classes may be delayed or canceled. If weather conditions warrant, the NIACC Charles City Center may be closed by the President or his designee.

5. Early Dismissal of Classes - Should conditions develop during the day which would dictate that classes be dismissed early, the announcement of such dismissal will be circulated to the buildings by a member of the faculty or administrative staff. Students will not be used to circulate such information. The decision for early dismissal will be made by the President or his designee.

6. On-Campus Evening Classes - Any decision regarding on-campus evening classes (those starting after 6:00 p.m.) shall be made as early as possible with a target time of 3:00 p.m., and cancellation announcements will be given over area radio and TV listed above.

7. Off-Campus Evening Classes -If the class is held at a K-12 community school site, the decision is made by the local Superintendent of Schools with cancellation announcements initiated by him/her. If he/she closes the K-12 system, NIACC classes held in that community are likewise to be considered canceled.

8. Special Events and Auditorium Events - Such events will not be included in the general announcement issued by the College unless specified. Sponsoring organizations will be responsible for announcements of cancellations. EXCEPTION: If it is announced that the campus is closed, all activities are canceled.

Safety Awareness

Crime Awareness and Campus Security

The Student Right-to-Know and Campus Security Act (PL 101-542) requires colleges and universities whose students receive federal student aid to disclose and report program completion and graduation rates for students, for student athletes, and maintain certain campus security policies and campus crime information.

The following statistics, provided in compliance with the Federal Crime Awareness and Campus Security Act of 1990, are for your information. The first six statistics reflect the number of crimes reported on campus. The last three statistics reflect the number of arrests associated with each respective offense. If you have questions, contact the Vice President for Student Services.

July 1, 2000 - June 30, 2001

Reported Occurrences

Murder	0
Rape	0
Robbery	0
Aggravated Assault	0
Burglary	0
Motor Vehicle Theft	0

Arrests

Liquor Law Violations	0
Drug Abuse Violations	0
Weapons Possessions	0

Reporting Crimes

Students are encouraged to report all criminal incidents and/or suspicious activity to the Mason City Police Department. Any crime on campus or violation of the Student Conduct Code should be reported to the Vice President for Student Services.

Sexual Abuse

Sexual abuse is defined as sexual contact with an individual who is either unwilling or unable to consent to the sexual contact.

Members of the counseling staff understand the personal and potentially traumatic nature of these incidents and are available to provide students with support, information, and guidance in responding to incidents involving sexual abuse.

What to do if you are sexually abused

There are a variety of options available to students who are sexually abused. Listed below are several options students may choose when attempting to resolve some of the issues associated with a sexual assault. An individual may select all of these options, or he/she may select none of them. One important component of recovery after a sexual assault is talking about the incident, and each person must choose the avenue that is best for him/her.

1. Contact the police immediately. Dial 911 from a campus extension phone or any other phone. Even if a person is unsure whether or not he/she wishes to file criminal charges, reporting the incident to the police helps maintain available options by preserving important evidence. An individual should not wash, douche, or shower following an assault because it could destroy evidence. Members of the counseling staff are available to assist students throughout this process.

2. Contact a trained sexual assault advocate. Advocates are available through the Sexual Assault Center and may be contacted by the police, emergency room personnel or directly through their answering service at 424-7433. Advocates are available 24-hours each day, and may provide valuable support and information.

3. Contact the Mental Health Center of North Iowa. Professional counselors are an invaluable resource in surviving a sexual assault. Counselors can provide immediate as well as long-term support and may be contacted at 424-2075.

4. Report the crime to the Vice President for Student Services. He/she can provide information about on-campus counseling services and campus disciplinary systems. The NIACC campus disciplinary system may be utilized for incidents where the parties involved are NIACC students. (See page 187.)

Sexual assault prevention programs are sponsored annually on the NIACC campus with the goal of promoting safe, healthy, non-violent relationships. Educational information is presented at New Student Orientation, during residence hall programs and at campus-wide informational sessions.

STUDENT SERVICES

ADMISSIONS

Students begin the admissions process by contacting the Admissions Office located on the first floor of the Activity Center. Office hours are 7:45 a.m. to 4:15 p.m. Monday through Friday and by appointment. Special visitation days are held periodically throughout the year.

Special Visitation Days

* Frame Your Future
  Held the first Friday of most months. Students will learn about NIACC programs, visit with instructors in the department they are interested in, tour the campus and housing facilities and have an opportunity to meet and visit with current students. Registration required, please call the Admissions Office.

  October 4, 2002
  November 1, 2002
  December 6, 2002
  February 7, 2003
  March 7, 2003
  April 4, 2003

* Saturday Visits
  The Admissions Office will be open for individual appointments on the following Saturdays. Please call to make an appointment.

  November 16, 2002
  January 25, 2003
  February 22, 2003
  March 22, 2003
  April 12, 2003

For more information, call 641-422-4245 or 1-888-GO NIACC, Extension 4245.

Applying to the College

North Iowa Area Community College is an "open door" public two-year college. Generally, you will not encounter any problems in being admitted, but you must complete certain admissions steps. (Please note that admission to the College does not ensure admission to all programs offered.)

All application materials are to be submitted to the Admissions Office, North Iowa Area Community College 500 College Drive, Mason City, Iowa 50401. You may also complete an online application (www.niacc.edu).

1. Carefully complete the NIACC Application for Admission. Your registration date will be established according to the date your application is received. Note that your social security number is required on the application.

2. Submit your high school transcript or GED scores with your application. (Upon graduation you should submit a final transcript.) [If you do not have your high school diploma or equivalent, contact the College to find out how we can help you earn one. A student will be allowed to take courses for one semester while obtaining the GED. The student will not be eligible for financial aid during the semester he/she is completing the GED.]

3. An assessment of your skills and abilities is required as part of the registration process. You may either submit your American College Test (ACT) scores or complete the COMPASS assessment at NIACC. COMPASS assessment is provided in Hampton, Charles City, Lake Mills, and Garner on a regular basis. Call the Admissions Office to schedule the COMPASS assessment.

   See pages 202-203 for the Course Placement Information Chart.

4. If you have earned credits at an other college, have your transcript(s) forwarded to NIACC.

Note: Students applying for the Associate Degree Nursing, Practical Nursing, LPN to ADN, Medical Lab Technician, Physical Therapist Assistant, Information Systems Technology, or E-Commerce, Web Design and Development Programs need to complete a specific packet of application materials available from the Student Services Office in the Administration Building, Room 104. Please call 641-422-4207 or 1-888-GO NIACC, Ext. 4207, for more information.

High school students may enroll in both high school and college classes provided their high school has knowledge of this concurrent enrollment. Whether these courses receive high school credit is entirely at the discretion of the high school administration. Post-secondary Enrollment Options (PSEO) classes are another option for top high school juniors and seniors (ask your high school counselor for more information.)

International Students

International students who desire admission are sent an international student admission packet. A TOEFL score of 520 is required as evidence of command of the English language to profit from the curriculum. Also evidence of adequate financial resources is required of all international students. All required documents must be returned with the $50 application fee before issuance of Forms I-20A and B (Immigration Certificate of Acceptance). Contact the Admissions Office for an international student admissions packet.

Orientation

All new and transfer students who are entering NIACC for the first time and who intend to take day classes are required to attend a new student orientation. During orientation students learn about NIACC policies and procedures, academic requirements, faculty expectations, and are given information about financing their education, student housing, and student activities. Students will also learn how to adapt to their new college environment.

COLLEGIATE ATHLETIC PROGRAM

A full athletic program is maintained at NIACC. Men have the opportunity to participate in football, soccer, basketball, golf, and baseball. Women's intercollegiate sports are softball, soccer, basketball, golf, and volleyball. These athletic offerings give NIACC one of the most diverse sports schedules for junior colleges in Iowa. The opportunity to participate is open to all bona fide students who have the desire and ability to compete at the community college level.

Ryan McGuire, Athletic Director

Coaches

Baseball .....Todd Rima

Basketball, Men's .....Steve Krafcisin

Basketball, Women's .....John Oertel

Football.....Dick Ramsey

Men's and Women's Golf.....Jennifer Currier

Softball .....Joe Yegge

Volleyball.....Rachel McGuire

Men's and Women's Soccer .....Jason Hoenshell

Athletic Conference

NIACC is a member of the Iowa Community College Athletic Conference (ICCAC) and the National Junior College Athletic Association (NJCAA).

Eligibility

The following are established criteria for participation in athletics at NIACC which are based on the policies established by NJCAA.

1. Students must be a high school graduate and show evidence thereof by submitting a diploma or a GED certificate. Official transcripts of all previous schools attended must be on file in the Admissions Office including both high school and college transcripts. Transcripts should be on file prior to enrollment but must be received before the eligibility roster is sent to the National Office.

2. Non-high school graduates can establish eligibility for athletic participation by completing one term of college work (passing 12 credits with a 1.75 grade point average or higher). This must take place after the student's high school class has graduated.

3. A physical exam is required prior to the first practice by a qualified health care professional licensed to administer physical examinations.

4. In order to remain eligible, student athletes must pass 12 semester hours with a grade point average of 1.75 or higher the semester prior to the first year of athletic competition. For sports like basketball, which encompass both semesters, an athlete must pass 12 semester hours during his/her first semester to be eligible during second semester. In order to be eligible during the second year of competition, all athletes must pass 24 semester hours with a 2.00 grade point average and pass 12 hours in their previous term with a 1.75 grade point average. It is the responsibility of the athletic director to certify the eligibility of each student athlete, who may be contacted for further information.

Athletic Scholarships

Athletic scholarships are available in limited number. These are awarded for the purpose of aiding athletes financially and providing talent on athletic teams in a highly competitive conference. The awards are based on:

1. Outstanding athletic ability.
2. Ability, desire and interest to do classroom work.
3. Recommendations.

Athletic scholarships shall not exceed the costs of tuition, fees and books. These scholarships may be supplemented by other forms of financial aid available to all qualified NIACC students.

Some general rules for NIACC athletes transferring to a senior college are:

1. An Associate in Arts NIACC graduate is eligible for athletic participation immediately upon transfer to any four-year college.
2. Some colleges permit an athlete to transfer after two terms with 24 hours credit with a 2.00 grade point average and be eligible immediately.
3. NIACC coaches and officials make every effort to assist graduating athletes to continue their athletic endeavors at a senior college.

COUNSELING

Where and when are counselors available?
A counselor is available from 7:45 a.m. to 6:30 p.m. Monday through Thursday; and on Friday from 7:45 a.m. to 4:15 p.m. The Counseling Center is located in the Administration Building, Room 104.

Who may use the Counseling Center?
The counseling/advising service is available to all NIACC students. There is no charge for this service.

How do I make my first contact with the Counseling Center?
Since the services of the Counseling Center are offered to you on a voluntary basis, you may arrange for an appointment whenever you have something you wish to discuss with a counselor. However, should you feel the need to see a counselor immediately, feel free to come to the Counseling Center without an appointment. Arrangements for an appointment with a counselor are made with the secretary at the center during regular office hours or by calling 422-4207.

How does counseling work?
Your counselor's job is to help you gain a better understanding of the significance of your feelings, attitudes, aptitudes and other personal data in order for you to have a more realistic basis upon which to make your own decisions. The ultimate goal is to help you grow in self-understanding so that you can cope better with your immediate situation and any problems that may arise.

Academic Advising

When you register, you are assigned a counselor/advisor according to your major. Most students continue to work with this counselor/advisor; however, changes may be made.

Every effort is made to ensure the accuracy of information given in the curriculum section of the catalog, and academic advisors advise students to the best of their abilities. IT IS, NEVERTHELESS, THE RESPONSIBILITY OF THE STUDENT TO BE CERTAIN THAT THE COURSES SELECTED WILL MEET THE REQUIREMENTS FOR THE DEGREE SOUGHT. Students should correspond with the transfer college and obtain verification of their complete program at North Iowa Area Community College.

Sample two-year plans are available on the Internet (www.niacc.edu).

For all beginning students, an entrance exam of ACT scores or COMPASS scores is needed. The chart on the following page contains the course placement information used for entry-level advising.

Career Counseling

Career counseling is available to assist students in making decisions about their college major and future career direction.

Students can make an appointment with a counselor for individual assistance or can attend career choices workshops offered on campus.

In career counseling, various assessments may be used to help students learn about their interests, personality preferences, values, and aptitudes and how they relate to their choice of college major and future career direction.

Special Needs

NIACC endeavors to provide reasonable accommodations for students requiring special services. When students become 18 years old, they are legally their own advocates. As self-advocates, students with disabilities are expected to negotiate accommodations individually with faculty and staff. However, counselors will assist students with special needs to become self-advocates. The counselor works with students, administrators, faculty, and support staff to insure that students who are disadvantaged or have disabilities receive full benefits of NIACC Services. Persons in need of supportive services should contact the Counseling Center.

The student must submit a request for accommodation to their counselor. This request should describe the requested accommodation. The student is responsible for providing documentation of the disability. A request form is available from the counselor.

Student Health

Campus Health Services
Health services are available for students in McAllister Hall, Room 104A (excluding breaks). Check with Student Services for times. Services are provided through the Mercy Family Care Network, Cerro Gordo Department of Public Health, and North Iowa Area Community College Counseling Center. The cost is $20.00 for an examination and $10.00 for consultation. HIV testing and counseling are free. An appointment is recommended and may be made through the Counseling Center.

Accident and Health Insurance
The purchase of student health insurance is voluntary at NIACC. Brochures identifying several plans are available in the Student Services Office. Uninsured students, or students enrolled in courses or activities where potentially hazardous situations may occur are encouraged to obtain health/accident insurance. Medical costs for treatment of illness or accident, not covered by personal insurance, must be paid by the individual student.

COURSE PLACEMENT INFORMATION
for Entry-Level Advising

MATHEMATICS PLACEMENT Entrance exam scores and high school requirements must be met.					
ACT* Math	COMPASS				**Course Placement**
	Pre Algebra	Algebra	College Algebra	Trig	
01-11	01-24				40:038 Enrich Math I
12-15	25-48				40:040 Basic Math Credit earned will not satisfy the requirements for an associate degree and will not be used in calculating the cumulative grade point average for graduation. (90:105 Business Math, and 90:168 Ag Math require ACT Math 01-15 or COMPASS Pre-Algebra 01-48)
16-20	49-100	01-51			40:060 Beginning Algebra Credit earned will not satisfy the requirements for an associate degree and will not be used in calculating the cumulative grade point average for graduation. 91:122 Occupational Math I (Automotive, Building Trades, Climate Control, Electromechanical, and Tool & Die Programs)
16-21	49-100	01-75			40:121 Math for Decision Making (Requirement: one year of high school algebra with a C or higher.)
20-21		51-75			40:120 Intermediate Algebra (Requirement: one year of high school algebra with a C or higher.) This course may not be used to satisfy core requirements. Elective credit only. 40:122 Math for Elementary Teachers (Requirement: successful completion [C or higher] of one year of high school algebra and one year of high school geometry.)
21-26		76-100	1-40		40:151 College Algebra & Trigonometry (Requirement: two years of high school algebra with a C or higher.) 91:107 Tech Math (Mech Design Program) (Requirement: two years of high school algebra with a C or higher) 40:125 Quant Methods (Requirement: two years of high school algebra with a C or higher.) 40:140 Intro to Statistics (Requirement: two years of high school algebra with a C or higher)
26-27			41-50		40:161 Pre-Calculus (Requirement: two years of high school algebra with a C or higher and one year of geometry with a C or higher.)
28-36				51-100	40:251 Analytic Geometry and Calculus I (Requirement: two years of high school algebra with a C or higher and one year of geometry with a C or higher and at least one semester of precalculus or trigonometry with a C or higher.)

*ACT scores are valid only if they are less than three years old. Students with outdated scores should contact the Admissions Office to schedule the Compass Assessment.

WRITING PLACEMENT		
COMPASS Writing	ACT English	**Course Placement Guidelines**
01-44	01-12	30:090 Basic Writing - Students who enroll in Basic Writing MAY receive 3 hours of Communication Skills I credit if they achieve competency.
45 and above	13-36	30:101 Communication Skills I Note: Mechanical Design and Electromechanical students should enroll in 95:130 Communications I (or Communication Skills I if transfer is primary goal).

READING PLACEMENT		
COMPASS Reading	ACT Reading	**Course Placement Guidelines**
01-81	01-18	30:120 College Reading Skills is strongly advised. (If a student wishes to enroll in 80:101 General Psych with a COMPASS score at this level or an ACT score of 16 or lower, s/he is encouraged to co-enroll in 30:120 College Reading Skills.)
82-100	19-36	Any reading-based course (such as Sociology or History). Enrollment in 30:120 College Reading Skills is still appropriate.

ENRICHMENT PROGRAM (FALL ONLY)

Placement into the Enrich Program would be mandatory if a new student exhibited both elements of the following profile:

1. Developmental scores in reading, writing, **and** math.
   Reading - ACT reading score be low 16 or COMPASS reading score be low 66.
   Writing - ACT writing score be low 13 or COMPASS writing score be low 45.
   Math - ACT math score be low 16 or COMPASS score be low 49% at the pre-algebra level.
2. High school GPA at or be low 2.0 **or** high school class rank of zero.

Information about Enrich

Enrich is a one-year program culminating in a General Studies diploma. It contains classes in reading, writing, math, personal management, career decision making, skills for job seeking, a cooperative education experience, and civic responsibility. These courses offer developmental credit and are eligible for financial aid. In addition, students enroll in a special problems seminar each semester that focuses on personal and career issues.

Emergencies
A referral will be made to a local medical facility when a student requires immediate medical attention. The student and parent will be responsible for the payment of such services.

FAMILY HEALTH LINE (formerly ASK-A-NURSE)
422-7777 or 1-800-468-0050
This is a community service which is offered 24 hours a day, 7 days a week and is staffed by an RN. The following services are provided: health information, physician referrals, community services and hospital services referrals.

Student Support Services

Student Support Services is a federally funded grant project which helps eligible students stay in college and graduate. The Project offers counseling, tutoring, a college survival skills orientation course, career exploration, transfer assistance, and cultural awareness.

Recipients of these services must be citizens or legal residents of the United States who are currently enrolled in a credit program. Participants must meet at least one of the following eligibility requirements: first generation student, low income, and/or physically handicapped/learning disability. Students interested in these services should call 641-422-4105, or 1-888-GO NIACC, Extension 4105, or stop at the Student Services Office in the Administration Building.

Substance Abuse Prevention and Referral

NIACC recognizes drug abuse as a potential health, safety, and security problem. Students needing help in dealing with such problems are encouraged to seek assistance from our college professional counselors and utilize the resources made available through the campus and the community.

Vocational Rehabilitation Services

Rehabilitation services are available to eligible students attending NIACC. These may include medical and psychological assessment, vocational evaluation, counseling and guidance, assistive technology, job training, and job placement assistance.

You may receive more information by calling 422-4227 or by stopping by the Activity Center, Room 205.

FINANCIAL AID AND SCHOLARSHIPS

FEDERAL AND STATE FINANCIAL AID

North Iowa Area Community College provides financial assistance in the form of grants, scholarships, loans, and part-time employment (work study) to meet educational expenses. Most of the assistance requires that the student demonstrate financial need. Students apply for financial aid by completing the Free Application for Federal Student Aid (FAFSA).

The FAFSA application may be completed anytime throughout the academic year. However, NIACC must have a valid federal output document (Student Aid Report) on file by the last day of your enrollment, or by August 31, following the end of the award year, whichever is earlier.

Applications received at the Federal Processing Center by March 1 will be given priority consideration for financial aid.

To be eligible for financial assistance, a student must meet the following eligibility criteria:

1. Have a high school diploma or GED or have passed an independently administered ability to benefit test.
2. Be a U.S. citizen or eligible noncitizen.
3. Be enrolled as a regular student in an eligible program of study for the purpose of obtaining a degree.
4. Be registered with Selective Service, if required (most males from age 18-25).
5. Maintain Satisfactory Academic Progress.
6. Not owe a refund on a Federal grant or be in default of a Federal educational loan.

GRANTS

Federal Pell Grant

Federal grants awarded directly to students. Students must demonstrate need.

Federal Supplemental Educational Opportunity Grant

-Federally funded grants administered by NIACC
-Student must demonstrate need
-Awards limited to funds available

Iowa Vocational-Technical Grant

-Iowa resident
-Enrolled in Career or Career Option programs
-Student must demonstrate need
-FAFSA Application must be filed by July 1

Iowa Grant

-Iowa resident
-Student must demonstrate need
-Awards limited to fund available

The Iowa National Guard Tuition Assistance Program

The Iowa National Guard Tuition Assistance Program (INGTAP) may pay up to 50% of undergraduate tuition for active members of the Iowa Army and Air National Guard. Eligibility for this tuition assistance program is determined by the Adjutant General of Iowa and funding for the program is determined on an annual basis by the Iowa General Assembly.

Individuals must submit an application to their Unit Commander to apply for this program. The Adjutant General determines eligibility and then notifies the Iowa College Student Aid Commission (ICSAC) of approved applications. The College is notified by the Iowa College Student Aid Commission of the student's eligibility.

WORK STUDY

Federal Work Study (FWS)

-Part-time work opportunities
-Federally funded, NIACC administered
-Student must demonstrate need

Students awarded work study will receive a placement letter indicating where they will be working and whom their supervisor will be. Students must complete the I-9 and W-4 payroll forms before they are allowed to begin employment. These forms can be completed at the NIACC Business Office. Students must complete a work study authorization before employment. This authorization allows NIACC to apply their earnings toward their college account. When the account is paid in full, the earnings will be released to the student at the address they provide. Students can choose to cancel their authorization; however, if they owe a NIACC bill, the check will be held in the Business Office until the debt is paid in full.

LOANS

Federal Perkins Loan

-Federally funded, low interest (5%) loans administered by NIACC
-Student must demonstrate need
-Awards limited to funds available

Nursing Student Loan

-Low interest (5%) loans
-Available to Associate Degree Nursing students
-Student must demonstrate need
-Awards limited to funds available

Federal Direct Stafford Loan

-Low interest (variable rate) loans, maximum rate of 8.25%
-Eligibility is determined from the Free Application for Federal Student Aid (FAFSA)
-Student must demonstrate need
-Maximum loan $2625 for freshmen and $3500 for sophomore students per year
-Independent students may request up to an additional $4,000 unsubsidized loan.
-Department of Education loan origination fee of 3%

Federal Direct PLUS Loan

-Low interest (variable rate), maximum rate of 9%

-Loans available to parents of dependent students
-Financial need is not required
-Maximum loan amount limited to cost of attendance minus other financial aid
-Department of Education loan origination fee of 4%

Loan Requirement
Students that borrow federal loans will be required to complete an Entrance Counseling session prior to any disbursements. This federal requirement can be completed by attending an Entrance Counseling session with a Financial Aid officer, viewing the Department of Education's entrance video in the Student Learning Center, or completing the requirement on-line at www.ed.gov/DirectLoan/counsel. Upon completion of one of these sessions, the student must submit the Rights and Responsibilities checklist to the Financial Aid Office. When students have completed their degree requirements or drop below half-time status, they are required to complete an Exit Counseling session. Students can attend an Exit session in one of the same three ways as the entrance requirement. They will learn about the importance of repaying student loan obligations and the consequences they may face if they default on a Federal student loan. Repayment schedules and options will be explained to each student. For more information on the Federal student loan programs, you can visit their Internet site: www.ed.gov/DirectLoan.

Method and Frequency of Disbursing Financial Aid Disbursements
Upon receipt of the student's award letter and loan acceptance (if applicable), the financial aid will be transmitted to the Business Office and applied to the student's bill. The student's award letter will tell them when this approximately takes place. Any payment due the student, after payment of tuition and fees (and residence hall charges, if applicable), will be released to the student as scheduled by the Business Office. The first release of excess funds is usually two weeks after the beginning of the semester, and approximately every two weeks thereafter for aid finalized after the semester begins. NOTE: If students are first time loan borrowers, there is a Federal mandatory 30-day waiting period before funds can be released to students.

For additional information regarding application procedures, deadlines, financial need, and resources available, call the NIACC Financial Aid Office, 1-888-GO NIACC, Ext. 4168 or (641) 422-4168.

SATISFACTORY PROGRESS FOR FINANCIAL AID RECIPIENTS

Federal regulations require that students maintain satisfactory progress while pursuing their educational course of study in order to receive financial aid. Students who apply for financial aid will have their academic records reviewed each semester to determine if satisfactory progress is being made according to the following guidelines:

A. Full-time students enrolled in a four-semester program of study are allowed no more than six full-time equivalent semesters to attain an associate degree (whether or not aid is actually received during that time). Should a program require summer attendance, an appropriate proportion will be added.

B. Full-time students enrolled in a two-semester program of study are allowed no more than three full-time equivalent semesters to attain a diploma (whether or not aid is actually received during that time). Should a program require summer attendance, an appropriate proportion will be added.

C. Part-time students will be given proportionally longer to attain their degree.

In order to maintain satisfactory progress the following will apply:

A student enrolled full-time (registered for 12 or more credits) must complete ten credit hours per semester with a minimum cumulative GPA of 2.00.

A student enrolled three-quarter time (9-10-11 credit hours) must complete 7 credit hours per semester with a minimum cumulative GPA of 2.00.

A student enrolled half-time (6-7-8 credit hours) must complete 5 credit hours per semester with a minimum cumulative GPA of 2.00.

A student enrolled less than half-time will be expected to complete all course work attempted with a minimum GPA of 2.00.

Letter grades of I, N, W, Q, and F do not count toward completed credit. Letter grades of T, L, or P are used in credits completed. A letter grade of O exempts past grades earned by the student.

Remedial courses and repeated courses may be used as part of the student's load. However, maximum time frames still governs satisfactory progress.

Transfer credits will apply toward the maximum number of terms to attain a degree.

Probation
Any student failing to meet these standards will be placed on Financial Aid Probation. Any student on Financial Aid Probation will have one semester to bring his/her course work up to minimum standards. The student will still be able to receive financial aid for the probationary semester.

Termination of Financial Aid Eligibility
If a student fails to attain these standards by the end of the probationary semester, he/she will be terminated from further financial aid.

Reinstatement
To regain eligibility for financial aid, the student will have to bring their course work up to minimum standards at their own expense. It is the responsibility of the student to notify the Financial Aid Office that their course work meets minimum standards. A student may also submit a written appeal documenting mitigating circumstances (ex: withdrawal because of illness) that prevented him/her from meeting minimum standards. Appeals will be re-

viewed by the Financial Aid Appeal Committee and a written response will be communicated to the student.

Title IV Financial Aid Class Attendance Policy

Students receiving Federal financial aid MUST attend class on a regular basis **AND** make satisfactory academic progress. If you fail to attend class on a regular basis, your financial aid will be suspended. Federal repayment and/or refund calculations of financial aid will be based on class attendance as provided by your instructor(s). NIACC's attendance policy for arranged or on-line classes is documentation from the instructor that the student has made contact with the instructor and has made progress towards completion of the course. If you get Federal student aid, **and you do not attend class,** you will have to pay it back.

SCHOLARSHIPS

Foundation Scholarships

Scholarships are made possible through the generous support of individuals, businesses, and industries throughout the North Iowa area.

Students wanting information about scholarships should contact the NIACC Financial Aid Office. Application deadlines for most scholarships are December 1 and April 1.

Trustees' Scholarships

Valedictorians and salutatorians from accredited high schools are eligible for full-tuition scholarships. Students must enroll full time by the fall semester following their high school graduation. These scholarships are renewable, assuming the student maintains a 3.25 GPA and completes 24 semester hours.

President's Scholarships

These scholarships are automatically awarded to high school seniors with an ACT composite score of 23 or higher enrolling full time at NIACC by the fall semester following their high school graduation. The amount of scholarship increases depending on the ACT score. The categories are as follows:

ACT Composite 23 to 27	$ 500
ACT Composite 28 to 30	$ 1,000
ACT Composite 31 to 36	$ 1,500

President's Scholarships may be renewable. The student must complete 24 semester hours and maintain a 3.25 GPA. If a student is awarded a Foundation Scholarship and is able to renew his/her President's Scholarship, an evaluation will take place to ensure the student receives the greater award.

Adult Part-time Scholarships

These community-based scholarships (up to $500) are for adults from the Lake Mills and Charles City areas taking at least two, but no more than six semester hours of credit. Contact the appropriate center director.

Ambassador's Scholarships

The Ambassador Scholarship program provides financial incentives and rewards for promising NIACC graduates. The goal is to encourage strong academic performance by these Ambassadors as they pursue their studies at senior universities. Awards are made at the time of graduation and are usually in the amount of $500. Applications can be picked up at the NIACC Financial Aid Office.

Residence Hall Scholarships

These scholarships are awarded to both returning and new students who have shown good citizenship and leadership in a group living environment. Academic ability is also considered. Applications are available through the Financial Aid, Admissions, or Residence Hall Offices.

Pappajohn Entrepreneurial Scholarships

These scholarships are awarded to students who have established an interest in entrepreneurship and plan to continue their education in this area. Awards are based on academic ability and interest and experience in the field. Applications are available through the Financial Aid Office or the Pappajohn Center.

Special Talent Scholarships

These scholarships are awarded by staff involved in the specific program area. Typically, special talent scholarships are awarded in vocal music, instrumental music, journalism, art, athletics, and theatre. Contact the departments for further information.

Study Abroad Scholarships

These scholarships are awarded to students who plan to participate in either short-term or semester-long College-sponsored Study Abroad opportunities, and who have earned 12 semester hours with a 2.50 GPA or better. Financial need, and academic ability are also considered. Applications are available through the Financial Aid Office.

Will F. Muse Scholarship Fund

The Will F. Muse Scholarship Fund was established by Mrs. Ralph (Elizabeth Muse) Norris in memory of her father. Annual awards help students reach education goals at NIACC or the college of their choice. Awards for 2002-2003 are $650 per semester.

To be eligible, applicants must be high school graduates or must possess a general equivalency degree. Priority is given to residents of Cerro Gordo County. Applications, available from the Financial Aid Office at NIACC, must be completed and submitted by February 1.

Recipients must agree to submit official transcripts showing successful completion of work for the period covered by the grant award.

Christopherson Medical Scholarship Fund

The Christopherson Medical Scholarship Fund was established by the family, friends, and associates of Dr. Joseph E. Christopherson and his wife, Evelyn, to encourage talented students from North Iowa to become a physician.

To be eligible, applicants must be premedical or medical students. Of premed students, priority is given to NIACC students. Application information, available

from the Financial Aid Office at NIACC, must be completed and submitted by the March 1 deadline.

Scholarship Providers

Permanent Endowed Scholarship Funds

Dr. Carroll O. Adams and Velma I. Adams Scholarship
Earl Ashland Memorial Fund
Baia Scholarship
Dr. Martha Ann Thomson Barclay Scholarship
Clifford H. Beem Memorial Fund
Barbara Bush Scholarship Fund
Business & Professional Women
Carstensen Family Scholarship Fund
Cerro Gordo County Medical Society
Christopherson Medical Scholarship Fund
Caroline O. Colson Memorial Scholarship
Concert Band Scholarship
George Coyan Memorial Scholarship Fund
Dellage Family Scholarship
Donald K. DePrenger Memorial Scholarship
Dr. John B. and Mary Jane Dixon Scholarship
Elgin G. Enabnit Scholarship Fund
Simon Estes Scholarship Fund
Fangman Memorial Fund
Edgar S. Gage Family Scholarship
Henry R. Giesman Memorial Scholarship
Bill and Rachael Gildner Scholarship Fund
Paul and Clara Gustafson Memorial Fund
Esther C. Haase Memorial Scholarship Fund
Ward D. Harrison Memorial Fund
Polly Hedgecock Memorial Scholarship Fund
Leon and Naureen Heiman Memorial Scholarship
Hermanson Scholarship
John and Donna Hitzhusen Scholarship Fund
Frank Hoffman Memorial Scholarship Fund
Robert H. and Mary Isensee Scholarship Fund
Rollo C. Keithahn Memorial Scholarship Fund
Harriet Klath Memorial Fund
Glen and Penny Krogh Scholarship Fund
Florence Liebl Memorial Fund
Kenneth A. Loeb Memorial Scholarship Fund
Art and Rachelle Lundblad Scholarship
Charles W. and Mary Jane Maxon Memorial Fund
Becky K. McGee Scholarship Fund
NIACC Employee Scholarship Fund
NSB Bank Scholarship
North Iowa Automotive Technology Scholarship Fund
Opheim Family Scholarship
Esther Pagenhart Scholarship Fund
Alma Partridge Education Scholarship Fund
Allen D. and Ann Y. Patton Scholarship Fund
Hjalmer and Margaret Peterson Memorial Fund
Joel Picker Social Science Scholarship
Roger and Marie Pitman Memorial Fund
Terry D. Reichardt Memorial Engineering Scholarship
John S. Rothamel Memorial Scholarship
Schaefer Building Trades Scholarship
Marie J. Schalekamp Memorial Scholarship
Frank Schmitz Memorial Scholarship Fund
Hazel Simpson Scholarship
Kathleen Sonnesyn Memorial Scholarship
John O. Starks Memorial Scholarship Fund
Steneker Family Fund
Dean Stephens Memorial Scholarship
Esther L. Strickland Scholarship Fund
Helen Perkins Thompson Scholarship
George I. and Eunice A. Tice Scholarship
Dr. Calvin H. Warne Memorial Scholarship
Tom Wedeking Memorial Scholarship
Charles S. and Mildred M. Whitney Scholarship Fund
Maude Wilson Theatre Arts Scholarship Fund
Melvin "Bud" Wilson Scholarship

Term Scholarships (Sponsors vary annually)

Beta Sigma Phi Scholarship
Wayne Brady Scholarship
Charles City Scholarship Fund
Communication Skills Scholarship
Cooper Company Scholarship
Crow's Hybrid Corn Company
Curries Company Scholarship
Curries Mechanical Design Technology Scholarship
Delta Kappa Gamma XI Chapter
Ray Fank Memorial Scholarship
First Citizens National Bank Scholarship
Haas Chiropractic Scholarship Fund
Frank and Margaret Hoffman Organ Study Scholarship
Hormel Foods Corporation Scholarship
Naomi and Thor Jensen Scholarship
Kitchen Cabinet Scholarship Fund
Lake Mills Scholarship Fund
Virginia Lawrence Scholarship
Virginia Lawrence Scholarship in memory of Kay Cavanaugh Maring
Paul and Barbara MacGregor Scholarship Fund
Angus MacNider Memorial Scholarship
Manufacturing Technology Scholarship Fund
Martin Marietta Scholarship
Ann Mason Memorial Scholarship
MCHS Class of 1961 Scholarship
Mason City Chamber of Commerce Scholarship
Masters' Chiropractic Scholarship
Mrs. John (Mildred) McMenimen Memorial Scholarship
Mercy Medical Center Auxiliary-North Iowa Scholarship
Loyal and Pearl Minor Memorial Fund
NIACC Alumni Association Scholarship
NIACC Board of Director's Scholarship
NIACC Bookstore Scholarship
NIACC/Family Practice Physical Scholarship
NIACC Foundation Board of Director's Scholarship
NIACC Foundation Tool and Die Technology Scholarship
Noon Kiwanis Club
North Iowa Area College Educators Association Scholarship
Frederick J. Olson Memorial Scholarship
Tom Osborne Scholarship
John and Mary Pappajohn Scholarship
River City Street Rods Scholarship
Virginia Mae Rodgers Scholarship
Carletta Sinnett Rosenthal Memorial Fund
75th Anniversary Scholarship Fund
Bertha Stebens Fine Arts Scholarship Fund
Ira Stinson Memorial Fund
Delphine Suter Memorial Scholarship Fund
30 Couple Marathon Scholarship
3M Forest City Distribution Center Scholarship
Wells Fargo Bank Scholarship
Winnebago Mechanical Design Technology Loan/Scholarship Program
Youngblood Family Scholarship

Other Scholarships and Loans

NIACC students are encouraged to seek out local groups which work independently to provide scholarships to NIACC.

Those wanting financial aid in the form of grants, loans, and employment should seek the assistance of the Financial Aid Office. (Short-term emergency loans are made available by the Financial Aid Office from the Louis Bosveld Student Loan Fund.)

VETERANS' EDUCATIONAL BENEFITS

Current courses for college transfer and most career programs are approved for veterans' benefits. Generally those veterans who have been released from active duty fewer than 10 years ago under honorable conditions and who have served 181 days or more of continuous active duty are eligible. For further information contact the NIACC Veterans' Affairs Office in the Administration Building, Room 104.

NORTH IOWA CAREER CENTER

The North Iowa Career Center (Activity Center, Room 209) is an on-campus connection to the Workforce Development Partnership, a joint venture of Iowa Workforce Development, North Iowa Area Community College, and the Iowa Department of Human Services. This office provides a variety of services for students, alumni, and the general public including access to job listings, job search tools, and job fairs as well as a one-semester-hour-credit Employment Strategies course. In addition, students and alumni may make appointments for individualized assistance with job seeking skills and tools.

Placement statistics are maintained on career program graduates. Prospective students may utilize these statistics when determining a course of study. The North Iowa Career Center does not guarantee students or graduates employment. Rather the Center should be viewed as another avenue to follow in seeking satisfactory employment.

Companies are invited to send interviewers to the campus during the year. The North Iowa Career Center does not necessarily endorse interviewing companies. All students and graduates should investigate the integrity of these companies before accepting employment.

Cooperative Education Program

North Iowa Area Community College provides an educational program in which a student has the opportunity to blend theory and practice by combining classroom learning with planned and supervised field experience.

Cooperative Education is a concept which incorporates academic work with employment experience to provide a more meaningful and valuable total experience for the college student. The goal is to afford students the opportunity to enhance their academic knowledge, personal development, and professional preparation.

Credit is granted for the field experience in Cooperative Education. Students may earn up to 5 credits per term and apply 12 credits toward an associate degree. Appropriateness of learning objectives is an essential feature in the approval for credit process. For further information, contact the Student Services Center at 641-422-4207.

ON-CAMPUS HOUSING

North Iowa Area Community College, in cooperation with NIACC Dormitories, Inc., provides housing facilities for 480 single men and women. The residence hall is located at the north edge of the NIACC Campus and is within easy walking distance of classrooms, laboratories, the library, and the Activity Center.

The residence hall at NIACC has complete facilities for comfortable living. Rooms are carpeted and furnished with single beds, mattresses, draperies, wardrobes, individual study desks, chairs, telephone service, and cable television service. Students provide their own bedlinens, mattress pads, blankets, pillows, and towels and maintain the cleanliness and orderliness of their own rooms. A refrigerator is available to rent. A computer lab is available for student use.

NIACC also provides apartment-style housing for returning sophomore residents who qualify based on their grade point average, and the ability to live with three other similarly qualified individuals. NIACC Dormitories has 12 such apartments; each apartment has two bedrooms, two bathrooms, a kitchenette, dining room and living room combination and a patio overlooking one of our two lakes. The Housing staff reserves the right to determine which residence hall residents will reside in the NIACC apartments.

Food service, located in a commons area, provides the student with a 15 or 19 meal plan per week. Recreation rooms and laundry facilities are available for residents. Two head residents live in the facility. A student advisor is assigned to each floor.

Fees for the 2002-03 college year are as follows:*

Application Fee (nonrefundable).....$25
Prepayment Deposit (refundable) $50

Room and Board - Residence Hall
19 Meal Plan . . . . . $1,780 per semester
$3,560 per academic year
15 Meal Plan . . . . . $1,740 per semester
$3,480 per academic year

Apartments . . . . . $1, 200 per semester
$2,400 per academic year
10 Meal Plan (Optional) . . . . . $595 per semester
$1,190 per academic year

*These fees are subject to change.

All student housing is handicapped accessible.

Requirements to Live in Student Housing
Full-time freshmen students of North Iowa Area Community College are required to live in the residence hall. A student qualifying under one of the following shall be exempt from compliance with this rule:

1) Completion of twenty-seven (27) or more semester hours of college credit at the start of any term.

2) Residence with parent, legal guardian, spouse, grandparent, or adult sibling, provided sibling is a nonstudent or is married.

3) Attainment of twenty-one (21) years of age at the beginning of any academic term.

4) Designation as an international student, provided that there is an Affidavit of Support submitted and signed by a United States citizen of legal age.

A student who believes he or she has extenuating circumstances may petition the Director of Housing to be exempted.

Proof of compliance is the responsibility of every student seeking enrollment at NIACC.

REGISTRATION AND RECORDS

ACADEMIC TRANSCRIPT

To request an academic transcript, NIACC requires **written** authorization from the student. Request forms are available in the Records Office. If a student is unable to fill out the form at the Records Office, he/she may write or fax (641-422-4150) the Records Office to request a transcript. Transcripts of work completed at other schools are not available for redistribution by NIACC. A student may obtain his/her official NIACC transcript at no charge; however, if five (5) or more are requested at one time, there will be a $2.00 charge per transcript fee.

CHANGES IN REGISTRATION

Changes in Registration
Students should plan their academic programs carefully so that subsequent changes may be kept to a minimum. When necessary, changes may be made by consulting with a counselor or advisor and securing a "Schedule Change Request" card.

FAILURE TO ATTEND CLASS, ONCE REGISTERED, DOES NOT CANCEL REGISTRATION IN ANY CLASS OR CLASSES.

Failure to change registration except according to the above procedure will result in a grade of "F" recorded on the permanent record of that student.

A notation of "W" (withdrew) will be made on the student's permanent record if he/she officially withdraws prior to the published withdrawal date on the college calendar.

Adding/Dropping Course(s)
Adding a Course: Students who wish to add a course to their schedule must complete a Schedule Change Request form which is available from the Counseling Center. This must be completed within the first five days of scheduled classes or before the second meeting of an evening class.

Dropping a Course: Students who wish to drop a course must complete a Schedule Change Request form which is available from the Counseling Center. The last day to drop a course will be the two-thirds point of the term.

Any change initiated by the student to drop a course, add a course, or change a course section, beginning the first day of the term will incur a $5 charge per schedule card.

Withdrawal from College
A student who finds it necessary to withdraw from college before the end of the regular term should complete a student withdrawal form with assistance from a counselor/advisor and submit to the Recorder's Office. The last day for total withdrawal from all classes will be the two-thirds point of the term. Failure to do so may result in the issuance of failing grades in all subjects for which the student is registered. If it is impossible for the student to come to the College to withdraw, this may be done by mail and must include the student's last day of attendance.

IT SHOULD BE NOTED THAT REFUNDS (WHERE APPLICABLE) ARE BASED UPON THE DATE OF OFFICIAL WITHDRAWAL, NOT UPON THE LAST DATE OF CLASS ATTENDANCE.

Withdrawal from College cancels registration in all classes. There is no credit given for partial course work.

CLASSIFICATION OF STUDENTS

Freshmen - a student who has earned less than 27 semester hours of credit toward the completion of an associate degree; a student enrolled in a one-year career program or certificate program; or a student who has not yet enrolled in the second year of a program.

Sophomore - a student who has earned 27 or more semester hours toward the completion of an associate degree; or a student enrolled in the second year of a program.

Full-time - a student registered for 12 or more semester credits.

Part-time - a student registered for 11 or fewer semester credits.

Students shall also be classified as resident (in-state) or nonresident (out-of-state)

CREDITS AND GRADING

1. STUDENTS FROM ACCREDITED COLLEGES AND UNIVERSITIES
   Credit will be granted for courses taken at colleges or universities accredited by The High Learning Commission of the North Central Association or similar regional associations. Each student shall submit an official transcript to the Admissions Office bearing the original seal of records from each college or university the student has previously attended. Generally, credit will be awarded for courses in which the student has earned a grade of "C" or better.

2. STUDENTS FROM NONACCREDITED COLLEGES
   NIACC may recognize credit from a nonaccredited college or may admit the applicant on a provisional basis and provide a means for the validation of some or all of the credit. The validation period shall not be less than one semester and will ordinarily be a full academic year. NIACC will specify to the student the terms of the validation process at the time of provisional admission. The Registrar will evaluate the transfer credits.

3. TRADE/TECHNICAL CREDIT
   Generally, NIACC does not recognize credit from a trade or technical college.

4. ACCEPTANCE OF CREDIT
   a. Acceptance of credit by NIACC does not guarantee acceptance at other colleges.

b. Accepted transfer credit will be entered on the NIACC academic record after the student has completed course work at NIACC.

5. ARMED SERVICES CREDIT
Credit may be granted for valid educational experiences received in the Armed Forces. Credit will be considered on the same basis as that followed in accepting transfer credit. *A Guide to the Evaluation of Education Experiences in the Armed Forces* will be used to aid in evaluation. NIACC uses the course evaluation/recommendation provided by American Council on Education (ACE). For further information, contact the Registrar's Office in Student Services.

Grading

The quality of your work is evaluated by the grades you receive. They are a measure of your learning experience. Grades are also the basis for transfer to another college. Generally, a student is not considered admissible by a four-year college without at least a cumulative grade point average of 2.00. To achieve your academic goal, it is important that you develop good study habits at the beginning of your enrollment at NIACC.

Grade	Grade Points
A	4.00
A-	3.67
B+	3.33
B	3.00
B-	2.67
C+	2.33
C	2.00
C-	1.67
D+	1.33
D	1.00
D-	.67
F	.00

I - The incomplete grade "I" is used when the instructor believes there is a reasonable chance the student can and will make up the work within a reasonable time frame and the student has been doing satisfactory work in class. An incomplete grade, if not made up within the instructor guidelines, will become an "F" or "Q" one year after the end of the term.

W - The letter "W" will be given when a student officially withdraws from class(es).

Other Symbols:
X - Course repeated
N - Audit
T - Credit granted by examination (test out)
L - Credit granted for experiential learning
Q - No credit/no pass (used in pass/no pass courses only)
O - Grade requital (to be used only when Fresh Start is granted)
P - Credit earned/pass

Policy for Grades Earned in Repeated Courses

Grades earned in courses which have been repeated will be administered and interpreted according to the following guidelines:

1. Grades earned in all registrations will be recorded on the permanent transcript.
2. In computing the cumulative grade point average for graduation, only the most recent grade earned in a course which has been repeated will be used.
3. For purposes of satisfying a prerequisite, the most recent grade earned in a course will be used.

Grade Point Average

The grade point average is determined in the following manner:

1. Multiply the number of grade points equivalent to the letter grade received in each course by the number of credit hours attempted for the course to arrive at the quality points earned in each course.
2. Divide the sum of quality points by the total number of credit hours attempted. The quotient represents the grade point average (GPA) for the term.

The cumulative grade average is determined in the same manner as the grade point average, except that all of the student's work at the college is taken into account. Note: Developmental courses are not used in calculating the cumulative grade point average for graduation.

Grades and Reports

Midterm reports covering the work for the first half of each term will be available to all students. These reports are not recorded on the student's permanent record. Official reports showing final grades will be issued to all students at the close of the term and these will be recorded on the student's permanent record.

HONORS PROGRAM

New students are invited to participate in the Honors program if they have an ACT score of at least 24 or an equivalent score on other standardized tests taken within the previous three years. Additionally, new students must meet at least one of the following criteria: Trustees Scholarship recipient, class rank in the upper ten percent of their high school graduating class, or possess a high school grade point of 3.50 on a 4.00 scale. However, NIACC freshman who did not attain the above criteria in high school, but who are demonstrating exceptional work in their college classes may apply directly to the program or be nominated by a member of the faculty.

Students in the Honors program complete academic contracts in five general education areas. A sophomore project may be substituted for one of these contracts. These contracts consist of academic work above and beyond the normal curriculum of the course. Whenever possible, students will be encouraged to relate Honors work on contracts to their academic interests, even in courses not directly related to the student's major or vocational choice. By completing these contracts, maintaining a 3.50 grade point, and graduating from NIACC, Honors students may earn up to $1,000 in Ambassador

Scholarship money to be used where the student is continuing his or her education. In addition, Honors Students may receive Honors Course Designation on their NIACC transcript, may register early for classes, may participate freely in cultural events, and may receive special recognition by the college and four-year schools to which the student may transfer.

CREDIT BY EXAMINATIONS

1. PROFICIENCY EXAMINATION: Examinations are available for individual courses allowing students the chance to test out of courses in certain programs with permission of the faculty responsible for teaching the course.

2. ADVANCED PLACEMENT PROGRAM: High School students may earn credit through the Advanced Placement Program. Students must achieve scores of 3, 4, or 5 in order to qualify. Individual divisions may require additional documentation.

3. COLLEGE LEVEL EXAMINATION PROGRAM (CLEP): CLEP is a means of gaining credit through examination.

   CLEP has two forms. General examinations measure college level achievement in the basic areas usually covered in the first two years of college. These areas are considered the general or liberal education requirements.

   The second form is the Subject Examination. These measure achievement in specific college courses and are used to grant exemption from the credit for these courses.

   CLEP tests are administered by appointment on the NIACC campus. A maximum of 30 semester hours of credit are allowed for CLEP General Examinations or a combination of General and Subject Examinations.

   CLEP credit will not be awarded for courses already successfully completed. Accepted credit will be entered on the NIACC academic record after the student has completed course work at NIACC.

DEGREE REQUIREMENTS

Associate Degrees

Associate in Arts
Purposes of the degree:

1. Provide a degree goal for students who choose to follow a course of study which is specifically designed for transfer to a baccalaureate degree program.
2. Provide the essential general education, grade, and semester hour requirements for upper division status at most senior colleges and universities.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of work consisting of courses whose principal design is for a baccalaureate program. Up to 16 semester hours of career courses (courses with a 90's prefix) can be used as elective credit. Developmental courses (course number has a suffix less than 100) cannot be used to meet this requirement.
2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours.
3. A minimum overall cumulative grade point average of 2.00 (C) in cluding a 2.00 (C) cumulative grade point average in all course work at NIACC. Developmental courses are not used in calculating the cumulative grade point average for graduation.
4. Completion of the following General Education Core with a minimum of 40 semester hours:

   Communications ..... 8 s.h.

This requirement can be satisfied by baccalaureate-oriented communications or speech courses with a minimum of two courses in English composition.

   Social Sciences ..... 8 s.h.

   Humanities ..... 8 s.h.

Performance courses such as vocal and instrumental music may satisfy no more than four hours of this requirement.

   Natural Sciences* ..... 8 s.h.

(including at least one math and at least one science course)

   Distributed Requirement ..... 8 s.h.

(to be taken from among the four divisions above)

*It is recommended that students take a minimum of four semester hours of laboratory science.

5. Completion of the Academic Profile examination during the student's final semester prior to graduation.

Associate in Science

The purpose of the Associate in Science degree is to provide a degree goal for students who choose to follow a Natural Science degree program.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of work consisting of courses whose principal design is for a baccalaureate program. Up to 16 semester hours of career courses (courses with a 90's prefix) can be used as elective credit. Developmental courses (course number has a suffix less than 100) cannot be used to meet this requirement.

2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours.

3. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC.
   Developmental courses are not used in calculating the cumulative grade point average for graduation.

4. Completion of the following General Education Core with a minimum of 37 semester hours:

   Communications ..... 8 s.h.

   Social Sciences/Humanities ..... 9 s.h.

   Natural Sciences..... 20 s.h.
   (must include at least one math and at least one science course)

5. Completion of the Academic Profile examination during the student's final semester prior to graduation.

Associate in Science - Business

The purpose of the Associate in Science - Business degree is to provide a degree goal for students who choose to follow a course of study designed to give the student the option of obtaining employment in business or transferring to a four-year institution. Students who know they wish to pursue a four-year degree and want to meet general education requirements of transfer institutions should pursue the A.A. Degree.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of work consisting of courses whose principal design is for a baccalaureate program. Up to 16 semester hours of career courses (courses with a 90's prefix) can be used as elective credit. Developmental courses (course number has a suffix less than 100) cannot be used to meet this requirement.

2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours.

3. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC.
   Developmental courses are not used in calculating the cumulative grade point average for graduation.

4. Completion of a minimum of 30 semester hours in business courses designated with the prefix 15.

5. Completion of the following General Education Core:

   Communications ..... 8 s.h.

This requirement can be satisfied by baccalaureate-oriented communications or speech courses with a minimum of two courses in English Composition.

   Social Sciences and/or Humanities ..... 9 s.h.

   Natural Sciences..... 3 s.h.

6. Completion of the Academic Profile examination during the student's final semester prior to graduation.

Associate in Science - Medical Secretary

The purpose of the degree is to provide a degree goal for students who choose to follow a course of study designed to give the student the option of obtaining employment as a Medical Secretary or transferring to a four-year institution. Students who know they wish to pursue a four-year degree and want to meet general education requirements of transfer institutions should pursue the A.A. Degree.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of work consisting of courses whose principal design is for a baccalaureate program. Developmental courses (course number has a suffix less than 100) cannot be used to meet this requirement.

2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours.

3. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC. Developmental courses are not used in calculating the cumulative grade point average for graduation.

4. Completion of prescribed required two-year Medical Secretary curriculum.

5. Completion of the Academic Profile examination during the student's final semester prior to graduation.

Associate in Applied Science
Purposes of the degree include:

1. Provide a degree goal for students who choose to follow a course of study which is specifically designed to lead to employment upon completion of two years of study.

2. Provide the student with an entry skill level appropriate to the career for which he/she has been preparing.

3. Provide the student with general education skills: communications, social science and/or humanities, and math and/or science.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of a prescribed two-year career curriculum. Developmental courses (course number has a suffix less than 100) cannot be used to meet this requirement.

2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours, unless specified otherwise by a program's accrediting agency.

3. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC. Developmental courses are not used in calculating the cumulative grade point average for graduation.

5. Completion of the Academic Profile examination during the student's final semester prior to graduation.

Associate in General Studies
Purposes of the degree include:

1. Provide a degree goal for students who choose to follow an individualized course of study which is not specifically designed for transfer to a baccalaureate degree program.

2. Provide an attainable associate degree for students who complete career programs of less than two years duration.

3. Provide an associate degree for career education students who wish to enroll in selected courses to reach a personal career objective.

4. Provide a degree goal for students whose educational goals shift after initial commitment has been made.

5. Provide a flexible associate degree for students who attend college on a part-time or other non traditional basis.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of work designed to meet the personal or career goals of each individual student. Developmental courses (course number has a suffix less than 100) cannot be used to meet this requirement.

2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours.

3. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC. Developmental courses are not used in calculating the cumulative grade point average for graduation.

Diplomas
This recognition is granted to a person who has completed at least thirty (30) semester hours of credit.

Program Diploma
Diplomas are awarded for the following curricula. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC. Developmental courses are not used in calculating the cumulative grade point average for graduation.

Accounting with Computers
Automotive Service
Building Trades
Climate Control Mechanics
General Secretary
General Machinist
Legal Secretary
Marketing and Sales
Medical Assistant
Medical Secretary
Medical Transcriptionist
Practical Nursing
Supervision & Management

General Studies Diploma
The purpose of the diploma is to provide an achievement recognition:

1. For students who may choose to follow an individualized course of study which is not specifically designed for transfer to a degree program.

2. For career education students who wish to enroll in selected courses to reach a personal career objective.

3. For students who attend college on a part-time or other non traditional basis.

Requirements for the diploma include:

1. Completion of at least thirty (30) semester hours of career courses designed to meet the personal or career goals of each individual student.

2. One-half of the required semester hours must be completed under the aegis of North Iowa Area Community College including 15 of the last 30 semester hours.

3. A minimum overall cumulative grade point average of 2.00 (C) including a 2.00 (C) cumulative grade point average in all course work at NIACC.

Certificates

Certificates of completion are awarded to indicate that a student has satisfactorily completed a program of instruction other than those indicated previously. Certificates are usually issued to students upon completion of a short-term program of study with a 2.00 (C) grade point average.

THE FAMILY EDUCATIONAL RIGHTS AND PRIVACY ACT (FERPA)

Directory Information

According to the guidelines stated in the Family Educational Rights and Privacy Act of 1974, NIACC can release ONLY directory information on a student without the written consent of the student. NIACC defines directory information as the following:

1. Name
2. Address
3. Telephone number
4. Date and place of birth
5. Field of study
6. Activities participation
7. Sports participation
8. Weight and height (for athletic teams)
9. Dates of attendance (full-time/part-time status)
10. Degrees and awards received
11. Prior educational institutions attended
12. Deans list

Notification of Rights Under FERPA for Postsecondary Institutions

The Family Educational Rights and Privacy Act (FERPA) affords students certain rights with respect to their education records. They are:

1. The right to inspect and review the student's education records within 45 days of the day the College receives a request for access.

   Students should submit to the Registrar, Vice President for Student Services, head of the academic department, or other appropriate official, written requests that identify the record(s) they wish to inspect. The College official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the College official to whom the request was submitted, that official shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student's education records that the student believes are inaccurate or misleading.

   Students may ask the College to amend a record that they believe is inaccurate or misleading. They should write the College official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.

   If the College decides not to amend the record as requested by the student, the College will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student's education records, except to the extent that FERPA authorizes disclosure without consent.

   One exception which permits disclosure without consent is disclosure to school officials with legitimate educational interests. A school official is a person employed by the College in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff); a person or company with whom the College has contracted (such as an attorney, auditor, or collection agent); a person serving on the Board of Trustees; or a student serving on an official committee, such as disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

   A school official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures by *North Iowa Area Community College* to comply with the requirements of FERPA. The name and address of the Office that administers FERPA is:

   Family Policy Compliance Office
   US Department of Education
   600 Independence Avenue SW
   Washington DC 20202-4605

Disclosure of Education Record Information

(Source: Guidelines for Postsecondary Institutions for Implementation of the Family Educational Rights and Privacy Act of 1974 as amended.)

1. Institutions shall obtain written consent from students before disclosing any personally identifiable information from their education records (with the

exceptions as noted in sections 2, 3, 4, and 5 below). Such written consent must:

a. Specify the records to be released,

b. State the purpose of the disclosure,

c. Identify the party or class of parties to whom disclosure may be made, and

d. Be signed and dated by the student.

NORTH IOWA AREA COMMUNITY COLLEGE HAS THE RIGHT TO DISCLOSE INFORMATION FROM STUDENT EDUCATIONAL RECORDS IF THEY CHOOSE WITHOUT WRITTEN AUTHORIZATION FROM THE STUDENT ACCORDING TO THE FOLLOWING GUIDELINES:

2. Institutions must disclose education records or components thereof without written consent to students who request information from their own records.

3. Institutions may disclose education records or components thereof without written consent of students to:

a. authorized representatives of the following for audit or evaluation of Federal- and State-supported programs, or for enforcement of or compliance with Federal legal requirements which relate to those programs (see 34 CFR 99.35 for additional conditions that must be met):

i. the Comptroller General of the United States,

ii. the Secretary of the Department of Education,

iii. state educational authorities.

b. state and local officials to whom disclosure is specifically required by State Statute adopted prior to November 19, 1974.

c. Veterans Administration officials (not covered by FERPA but specified under Title 38, Section 1790 (c), United States Code; see appendix 7).

d. other school officials within the institution determined by the institution to have a legitimate educational interest (see chapter 5.3).

e. officials of other institutions in which a student seeks or intends to enroll on the condition that the issuing institution makes a reasonable attempt to inform the student of the disclosure unless the student initiates the transfer, or the written policy of the institution (discussed earlier) includes a notice that the institution forwards education records to other institutions that have requested the records in which the student seeks or intends to enroll (see 34 CFR 99.34 for additional conditions that must be met).

f. persons or organizations providing financial aid to students, or determining financial aid decisions concerning eligibility, amount, condition, and enforcement of terms of said aid.

g. organizations conducting studies for, or on behalf of, educational agencies or institutions to develop, validate, and administer predictive tests, to administer student aid programs or to improve instruction. Those organizations may not disclose personally identifiable information on students, and information secured must be destroyed when no longer needed for their projects. Institutions are advised to obtain such assurance in writing.

h. accrediting organizations carrying out their accrediting functions.

i. parents of a student who have established that student's status as a dependent according to Internal Revenue Code of 1954, Section 152 (see appendix 7 and chapter 5.4). (Institutions are not required to disclose information under this guideline and NIACC may chose not to disclose.)

j. persons in compliance with a judicial order or a lawfully issued subpoena, provided that the institution makes a reasonable attempt to notify the student in advance of compliance (see chapter 6.26.7 and appendix 15). NOTE: The institution is not required to notify the student if a federal grand jury subpoena, or any other subpoena is sued for a law enforcement purpose, orders the institution not to disclose the existence or contents of the subpoena.

k. persons in an emergency, if the knowledge of information, in fact, is necessary to protect the health or safety of students or other persons. (According to 34 CFR 99.36, the wording of this section "shall be strictly construed.")

l. an alleged victim of any crime of violence (as that term is defined in 18 U.S.C. 16) of the results of any institutional disciplinary proceeding against the alleged perpetrator of that crime with respect to that crime.

4. Institutions may release without written consent those items specified as public or Directory Information for students who are currently enrolled, provided the following conditions are met prior to disclosure:

a. that the institution inform the students of information or categories designated as public or Directory Information,

b. that students be given the opportunity to refuse disclosures of information for any or all categories of directory information, and

c. that the students be given a reasonable period of time in which to state such refusals in writing.

5. Institutions may release without written consent those items designated as public or Directory Information on any student not currently enrolled unless that student, at his/her last opportunity as a student, requested otherwise.

6. Institutions may also disclose personally identifiable information from a student's education records to a third party if the eligible student has signed and dated a written consent form which is presented to a school official by the third party.

GRADUATION

Application for Graduation

Students who plan to receive a degree or diploma must file an Application for Graduation form with the Registrar at the beginning of the semester prior to completion of college work.

The North Iowa Area Community College grants associate degrees, diplomas and certificates to certify the successful completion of programs of study.

Students must satisfy the graduation requirements in effect during the term of graduation or they may elect to graduate under requirements stated in the catalog at the time of initial entry if they have been continuously enrolled. (Continuous enrollment is defined as consecutive fall and spring semesters.) However, the General Education core status for courses will be determined by the status of the course during the term it was taken. Under certain unusual circumstances students may appeal for an exception to graduation requirements to the Academic Affairs Council through the Vice President for Student Services. This appeal must be made prior to the start of the term in which graduation is expected to occur.

Acceptance of transfer credit by NIACC toward a degree does not guarantee acceptance at other colleges.

Graduation

Commencement exercises are designed to provide formal recognition to students who have satisfied the requirements for an associate degree or diploma. Since only one ceremony is held each year in May, students completing requirements prior to that commencement or at the end of the summer term following commencement may participate in the May ceremony or may elect to receive the degree or diploma at the time of completion of requirements.

Attendance at the Commencement Ceremony is one of the requirements for receiving a degree or diploma from North Iowa Area Community College. Students who are unable to attend commencement exercises must make application to the Registrar to graduate in absentia. Such application must be made at least 30 days prior to the exercises. Mid year graduates will have the opportunity to respond by mail if they intend to participate in the graduation ceremony.

Dean's List

Full-time students who register and complete 12 or more graded credit hours with a 3.25 or better grade point average on graded credits during the Fall or Spring terms are qualified to be placed on the Dean's Honor List as published by the Registrar.

Part-time students who register and complete 6 to 11.5 graded credit hours with a 3.25 or better grade point average during the Fall or Spring terms are qualified to be placed on the Dean's Honor List as published by the Registrar.

Students who change their status from full-time to part-time during the term would not qualify for the part-time Dean's List as the requirements are that the student maintain the same status as initial registration.

Graduation Honors

A minimum of 30 semester hours of NIACC graded credit must be earned for degree honor recognition and a minimum of 15 semester hours of NIACC graded credit must be earned for diploma honor recognition. A student having earned an overall grade point average of 3.50 or more from NIACC will be graduated **WITH HIGHEST HONORS.** A student having earned an overall grade point average of 3.25 - 3.49 from NIACC will be graduated **WITH HONORS.** Transfer credits and developmental course credits are not used in the calculation of grade point average for graduation with honors.

Hall of Fame

Students completing an associate degree at North Iowa Area Community College with a scholastic record of all A's on graded credits will be admitted to the Hall of Fame. Members are recognized by having their names displayed on the hall of fame plaque in the Administration Building, and listed in the commencement program.

Disclosure of Graduation Rates

Graduation rates for our students are available in the Registrar's Office. Graduation rates for our student athletes by sport are available in the Athletic Director's Office, Vice President for Student Services' Office, or from the coaches.

Retention of Student Records

The official academic records of enrollment for credit earned by a student at North Iowa Area Community College shall be retained in perpetuity.

All student records documents which are used to create, update, and support the accuracy of the official academic transcript shall be retained for at least ten (10) years after a student's last enrollment. These documents may then be destroyed in the manner most appropriate.

All student financial aid records will be retained at least three (3) years following the end of the fiscal year for which funds were awarded.

All student cumulative folders which include the student's high school transcript and other academic information shall be retained for at least three (3) years after the student's last enrollment.

All veterans' records will be retained at least three (3) years following the ending date of their last enrollment.

Placement records (competency profiles) used to assist students and graduates in securing employment will be retained three (3) years from date of graduation.

PAYMENT PLANS/POLICIES

One Payment Plan Per Semester

Pay each semester's charges in full. Fall semester bill

will be sent in July and is due in full August 16, 2002. Spring semester bill will be sent in December and is due in full January 3, 2003.

Four Payment Plan Per Semester
Pay each semester's charges in four monthly installments. Fall semester bill will be sent in July with equal payments due August 16, September 16, October 16, and November 15. Spring semester bill will be sent in December with equal payments due January 3, February 3, March 3, and April 3. A 1% interest charge is assessed each month on the unpaid balance.

Failure to Pay
Failure to make payment (or file for financial aid) prior to the beginning of the semester may result in cancellation of your schedule (August 16 for the Fall Term and January 3 for the Spring Term). Reinstatement is possible when payment is made and if the courses are still available. If no payment has been made either directly or through Financial Aid, you are subject to administrative withdrawal, and if residing on campus, dismissal from NIACC student housing.

If the student chooses not to attend or is unable to attend College, he/she must notify the Records Office in writing prior to the term start date. The student is held liable for tuition and fee charges should he/she fail to notify the Records Office in writing prior to the term start date.

All financial obligations must be cleared before 1) a student will be allowed to register for a subsequent term; 2) the student's academic transcript will be released.

REGISTRATION PROCESS

Registration
Registration consists of: (1) student selecting appropriate courses, (2) program planning with an academic advisor, and (3) payment of tuition and fees to the college or completion of a college payment agreement filed with the Business Office. All steps must be taken before registration is complete.

Course schedules each term are available in the Student Services Office as soon as they are released by the Office of the Vice President for Academic Affairs.

Registration information for credit courses is also included in the Adult and Continuing Education Bulletin mailed to all households in the NIACC area in August and December. For further information please call the Admissions Office at 1-888-GO NIACC, Ext. 4245.

Wait List Policy
If a student is placed on a course wait list by the Records Office at the time of their registration, they will remain on the wait list through the Wednesday before classes begin or such time that an opening occurs. If an opening does occur, the first person on the wait list will automatically be entered into the course. A new schedule and billing statement reflecting the change will be sent to the student. After the Wednesday preceding the term start date the wait lists will no longer be in effect. All wait lists will be dropped at that time. It will be the responsibility of the student, if still interested in enrolling in a class that was previously closed, to inquire at the Records Office as to the status of the class.

Auditing a Class
Students who wish to audit classes may do so on a space-available basis after classes begin with instructor approval. The student must meet the attendance requirements in a course but is not required to complete assignments, take examinations, or meet other class requirements. The charge for an audited class is one-half tuition cost per semester.

RESIDENCY POLICY GUIDELINES

Reclassification of Non-resident Status

In determining resident or non-resident classification, the primary determination is the reason a person is in the state of Iowa. If a person is in the state primarily for educational purposes, that person will be considered a non-resident. The burden of establishing the reason a person is in Iowa for other than educational purposes rests with the student. The second determination will be the length of time a person has resided in Iowa. An individual must document residing in the state of Iowa for at least 90 days prior to the academic term for which residency status is sought.

Procedure

1. Students shall complete the **"Application for Resident Classification" form.**
2. Students shall submit the **"Application for Resident Classification" form** to the Office of the Registrar prior to registering for the academic term for which residency status is sought.
3. Students requesting residency status shall submit **documentary evidence of an established domicile within the State of Iowa for at least 90 days prior to the academic term for which residency status is sought.**

   In addition, the student shall submit **any two** of the following:

   a. An Iowa driver's license

   b. An Iowa vehicle registration

   c. Evidence of ownership of Iowa property

   d. An Iowa income tax return

   e. A voter's registration card for the State of Iowa (by county)

   f. Other similar evidence

4. Copies of the documentary evidence shall be attached to the **"Application for Resident Classification" form.**

Students will be notified as to the approval or denial of their request for residency status by the Office of the Registrar prior to enrollment in the term for which residency status is sought.

The **"Application for Resident Classification" form** and documentary evidence shall be filed in the Records Office.

Students may appeal the denial of residency status to the standing residency review committee.

Classification of residency status may be obtained by students who are not of majority age (at the time of application) through evidence submitted by the student's parent(s) or legal guardian(s).

Reclassification of residency status is not retroactive. International students cannot establish residency while studying in this country on a temporary visa.

TITLE IV FINANCIAL AID RECIPIENTS REFUND AND REPAYMENT POLICY

The refund schedule for recipients of Title IV Financial Aid will be calculated in accordance with Public Law 105-244, The Higher Education Amendments of 1998.

The law requires that if a student receives financial aid and withdraws from school during the payment period or period of enrollment in which the recipient began attendance, the school must calculate the amount of SFA Program assistance the student did not earn and those funds must be returned.

* Recalculation is based on the percent of earned aid using the following formula:
  - Percent earned = Number of days completed up to the withdrawal date*/total days in the semester.

* Federal financial aid is returned to the federal government based on the percent of unearned aid using the following formula:
  - Aid to be returned = (100% - percent earned) X the amount of aid disbursed toward institutional charges.

Institutions are required to return SFA funds on behalf of recipients in the following order:
1. Unsubsidized Federal Stafford Loans
2. Subsidized Federal Stafford Loans
3. Unsubsidized Federal Direct Stafford Loans
4. Subsidized Federal Direct Stafford Loans
5. Federal Perkins Loans
6. Federal PLUS Loans
7. Direct PLUS Loans
8. Federal Pell Grant
9. Federal SEOG
10. Other Title IV Assistance

In determining the amount of funds the student must return, the formula is as follows: Amount of Unearned Title IV Aid - School's Responsibility = Student's Responsibility.

Students must return funds in the following order:
1. Unsubsidized Federal Stafford Loans*
2. Subsidized Federal Stafford Loans*
3. Unsubsidized Direct Stafford Loans*
4. Subsidized Direct Stafford Loans*
5. Perkins Loans*
6. Federal PLUS Loans*
7. Direct PLUS Loans*
8. Federal Pell Grant x 50%
9. Federal SEOG x 50%
10. Other Title IV Assistance

* In accordance with terms of promissory note.

When aid is returned, the student may owe a bill to NIACC. The student should contact the Business Office to make payment arrangements.

<u>Examples of Title IV Refund Policy</u>

Example #1:

Student withdraws on the 25th day after the start of the semester which is 109 days long, student earns 22.93% of his/her federal aid. 77.07% of federal aid is considered to be unearned. The unearned amount must be repaid to loan and/or grant programs.

Student received a Pell grant of $1500 for the semester and is charged $1000 for tuition and fees. On the 21st day, the student received a cash refund of $500 for Pell grant that exceeded his/her cost. On the 25th day, the student officially withdraws from all classes.

$1000 X 22.93% = $229.30, the amount the college can apply to charges.

$1000 X 77.07% = $770.70, the amount the college must return to the federal government.

According to NIACC's Tuition Refund policy, the student is not entitled to a refund of charges.

Charges $1000.00
Earned aid .....-343.95
Adjusted balance due $656.05
Pell cash refund unearned = $385.35 of which the student must return 50% or $192.68.

Total amount student will owe = $848.73 ($656 to NIACC for uncovered tuition and fees and $192 of unearned cash refund to the U.S. Department of Education.

Example #2:

Student stops attending all classes and fails to notify the Registrar's Office. When the college determined that the student ceased attending all classes, NIACC asks instructors for the last date of attendance. When this documentation is gathered, NIACC will use this date as the student's unofficial date of withdrawal, if it is later than the 50% point of the semester. Assuming that the 50% point is used, the student will have earned 50% of his/her aid and the other 50% is considered unearned and must be repaid to the loan and/or grant programs.

The student received a Pell grant of $1500 for the semester and was charged $1000 for tuition and fees. On the 25th day he/she received a cash refund of $500 for Pell grant that exceeded their cost. The student stopped attending all classes but did not officially withdraw.

$1000 x 50% = $500, the amount the college can apply to charges.

$1000 x 50% = $500, the amount the college must return to the federal government.

According to the NIACC Tuition Refund policy, the student is not entitled to a refund of charges.

Charges $1000
Earned aid .....-$500
Adjusted balance due $500

Pell cash refund unearned = $250. Student must repay one-half of this amount or $125.

Total amount the student will owe = $625 ($500 to NIACC for uncovered tuition and fees and $125 of unearned cash refund to the U.S. Department of Education.)

If a student owes a repayment of grants to the U.S. Department of Education, they will remain ineligible for federal aid until they resolve their repayment. Students will have an opportunity to resolve the overpayment by contacting the NIACC Business Office within two weeks of receiving notice and making payment arrangements.

* In determining the withdrawal date of the student, NIACC's policy will be:
  - The date that the student began the withdrawal process by completing a Student Withdrawal Form with assistance from a counselor/advisor and submitting to the Records Office for withdrawal;
  - The date that student otherwise provided official notification to the school of the intent to withdraw; or
  - If the student did not begin the withdrawal process or otherwise notify the school of the intent to withdraw, the midpoint of the payment period for which the financial aid assistance was disbursed or a later date documented by the school.

If the school determines that a student did not begin the withdrawal process or otherwise notify the school of the intent to withdraw due to extenuating circumstances, the school may determine the appropriate withdrawal date.

TUITION AND FEES

Tuition

Tuition for attendance in any program is based upon two factors:

1. Number of credit hours for which the student enrolls.
2. Legal residence of the student.
   a) Iowa and Minnesota residents pay at the rate of 100 percent.
   b) Non-Iowa residents pay at the rate of 150 per cent of the Iowa resident tuition rate.
   c) Individuals 62 years of age and over pay one-half tuition and all fees.

The following tuition schedule is effective for all registrations occurring after June 30, 2002, and is subject to change or modification.

SEMESTER HOUR LOAD	IOWA RESIDENT TUITION	NON-IOWA RESIDENT TUITION
1	$ 78.00	$ 117.00
2	156.00	234.00
3	234.00	351.00
4	312.00	468.00
5	390.00	585.00
6	468.00	702.00
7	546.00	819.00
8	624.00	936.00
9	702.00	1,053.00
10	780.00	1,170.00
11	858.00	1,287.00
12	936.00	1,404.00
13	1,014.00	1,521.00
14	1,092.00	1,638.00
15	1,170.00	1,755.00
16	1,248.00	1,872.00
17	1,326.00	1,989.00
18	1,404.00	2,106.00
19	1,482.00	2,223.00
20*	1,560.00	2,340.00

***20 HOUR CAP ON TUITION AND FEES**

Fees

SEM. HOUR LOAD	MATERIALS/ LAB & SUPPLIES FEE	STUDENT ACTIVITIES FEE
1	$ 7.80	$ 2.65
2	15.60	5.30
3	23.40	7.95
4	31.20	10.60
5	39.00	13.25
6	46.80	15.90
7	54.60	18.55
8	62.40	21.20
9	70.20	23.85
10	78.00	26.50
11	85.80	29.15
12	93.60	31.80
13	101.40	34.45
14	109.20	37.10
15	117.00	39.75
16	124.80	42.40
17	132.60	45.05
18	140.40	47.70
19	148.20	50.35
20*	156.00	53.00

***20 HOUR CAP ON TUITION AND FEES**

*Materials, Lab, and Supplies Fees support a variety of educational and student services programs.

Applied Music Fees

Piano, vocal, & instrumental.....$75/course credit hour

THIS FEE IS IN ADDITION TO TUITION/FEES PER CREDIT HOUR

Beginning Piano Fee.....$75
(50:195 or 50:196) THIS FEE IS IN ADDITION TO TUITION/FEES PER CREDIT HOUR

Multi-Layer Switching Course Fee $1,057.75
THIS FEE IS IN ADDITION TO TUITION/FEES PER CREDIT HOUR

Network Routing Course Fee.....$1,057.75
THIS FEE IS IN ADDITION TO TUITION/FEES PER CREDIT HOUR

Network Remote Access Course Fee $1,057.75
THIS FEE IS IN ADDITION TO TUITION/FEES PER CREDIT HOUR

Network Support Course Fee..... $1,057.75
THIS FEE IS IN ADDITION TO TUITION/FEES PER CREDIT HOUR

Scuba Diving Course Fee
Total cost for the 1 s.h. course is $205.60 which includes tuition, certification card, textbooks, pool work, and five open water training dives.

Other Fees
Transcript fee .....no charge

TUITION REFUND

Students who wish to cancel their registration must notify the Registrar's Office in writing before the first day of the term to avoid tuition/fee assessment. Beginning the first day of the term, it will be necessary for students to formally withdraw (complete the necessary forms with a counselor/advisor and submit to the Records Office) to terminate their registration. Tuition/fee adjustments (excluding the Records Fee) are made for withdrawals according to the following schedule:

<u>16 Week Term Refund</u>
1-5 Days of Term.....90%
6-10 Days of Term 75%
11-15 Days of Term 50%
16-20 Days of Term 25%
After 20th Day.....No Refund
(Days are defined as Monday through Friday. Day count begins with the beginning date of the term.)

3 ½-Week Term/6-Week Term/
<u>8-Week Term Refund</u>
1-3 Days of Term.....90%
4-5 Days of Term.....75%
6-7 Days of Term.....50%
8-9 Days of Term.....25%
After 9 days..... No Refund
(Days are defined as Monday through Friday. Day count begins with the beginning date of the term.)

The same refund schedule will apply for individual courses that are dropped. The amount of refund will be the appropriate percentage between the tuition/fees charged for the new credit enrollment and the amount charged for the original credit enrollment.

THERE WILL BE NO REFUNDS FOR COURSES/ TERMS UNDER 3 ½ WEEKS IN LENGTH.

STUDENT CLUBS

Through the Student Activities Fee allocation, NIACC sponsors a wide variety of campus activities, student clubs and organizations, and resources. In addition to funding the Student Senate sponsored campus activities, student fees are allocated to athletics, student health services, intramurals, new student orientation, and clubs and organizations.

Clubs are associated with an academic department, but membership is open to all students. Each club must have a constitution on file with the Student Senate.

Current Clubs	Academic Department	Advisor	2001-2002 Allocation
AITP	IST	Mary Mosiman	
Ag Club	Agriculture	Larry Eichmeier	$1,000
Art Club	Art	Peggy Bang	
Automotive Club	Automotive	Greg Arrowood	
Campus Outreach	Ethics	Ann Kuhlman	
Forum Club	Ethics	Ann Kuhlman	
Karate Club	Physical Education	Bordon Plunkett	$300
Math Club	Math	Kathy Rogotzke	$500
Multicultural Student Union	Humanities	Geri Schwarz	
Nursing Club	Nursing	Laurie DeGroote	$1,000
Older Wiser Learners	Student Services	Kay Field	
Physical Therapist Assistant Club	PTA	Susan Callanan	$700
Scuba Club	Physical Education	Al Winsor	$100
Ski and Snowboard Club	Physical Education	Bruce McKee John Brietzke	$1,700
Student Environmental Affairs Club	Biology	Craig Zoellner	$200

Each year a new budget is established. A club may request student activities funds for the following purposes:

1. Attendance of members and club advisors at conferences and workshops (Reasonable request for transportation, lodging, and registration. No meals provided for club members. Advisors may be reimbursed through their department or the club budget.)
2. Special events for members such as banquets, honor/induction ceremonies.
3. Educational/social programs sponsored by the club but open to the public (expenses such as speaker fees, refreshments, etc.)
4. Leadership development activities (for club members only).

Clubs are encouraged to organize fund-raising events to further their mission.

Ag Club
If you're interested in agriculture, the Ag Club is intended for you. Activities may include trips to Denver and Chicago, livestock sales, Ag career seminars, fundraisers, and state and national conferences.

AITP
AITP (Association of Information Technology Professionals) is a professional association comprised of career-minded individuals who seek to expand their potential, including employers, employees, managers, programmers, and many others. The organization seeks to provide avenues for all their members to be teachers as well as students and to make

contacts with other members in the Information Technology field, all in an effort to become more marketable in rapidly changing technological careers.

It is the mission of AITP to provide superior leadership and education in Information Technology. AITP is dedicated to using the synergy of Information Technology partnerships to provide education and benefits to our members and to working with the industry to assist in the overall promotion and direction of Information Technology.

Art Club
If you're interested in extracurricular art activities, welcome to the Art Club. Art majors are highly encouraged to participate in this club; however, you do not have to major in art to benefit. The Art Club seeks to develop greater interest in the visual arts on the NIACC campus and in North Iowa. Artist workshops, field trips, social events, business meetings, and student exhibits are organized monthly by members. An annual spring bus trip to the Art Institute of Chicago gives you an opportunity to view internationally recognized art. Cash awards to deserving students are sponsored by the Club during the annual Iowa Student Competition.

Campus Outreach (COR)
Join students of all faiths in Christian fellowship through this organization. COR, which meets at the OK House across from campus student housing, sponsors dances, recreational activities, and volunteer activities for all students.

Forum Club
If you like to debate, join other students and NIACC faculty in discussing current controversial topics such as the environment, politics, and social issues. The Forum Club sponsors a series of speakers throughout the year.

Karate Club
The Japan Karate Association (JKA) at NIACC is open to students and staff interested in the art of Karate-do. Training with the Karate Club can improve your flexibility, conditioning, strength, balance, coordination, and ability to defend yourself. Rank acquired through JKA at NIACC is recognized at JKA clubs and schools throughout the world.

Math Club
The Math Club provides various opportunities for students (with a range of mathematical abilities) to take part in mathematical activities and events and to interact on a more informal basis with the faculty. Since the Math Club began in the Fall of 1997, members have competed during the national student math league competition, attended Mathematical Association of America (MAA) meetings, and planned Math Awareness Week activities.

Multicultural Student Union (MSU)
Explore cultural diversity through this organization. MSU strives to heighten awareness and knowledge of various cultures, combat racism in all its forms, and develop human potential in NIACC students. People of all races, ethnic, and religious backgrounds are encouraged to participate.

Nursing Club
Nursing students will benefit from the Nursing Club, which hosts a holiday mixer for freshmen and sophomore nursing students the last day of fall semester. You can also attend state conventions for national nursing associations to hear interesting speakers on pertinent topics.

Older Wiser LearnerS (OWLS)
If you've been out of the educational system for some time, OWLS may help you feel more comfortable. Older Wiser LearnerS are students 25 years of age and up who gather together to encourage each other, share success, solve problems, network, listen to speakers, plan projects, meet new friends, let off steam, cut red tape, and learn about the college system. You'll likely find strong support and friendships through this group which meets weekly for lunch.

Physical Therapist Assistant Club
The PTA Club is open to students currently enrolled in the Physical Therapist Assistant Program. The Club promotes public awareness of physical therapy as well as professionalism and leadership among PTA students. Members meet monthly to plan physical therapy month activities, participation in the annual state student conclave, and social events.

Scuba Club
Interested in traveling to the Caribbean or West Indies? The Scuba Club can take you there! Participation is encouraged whether or not you have scuba diving experience. Trips, which are determined by the level of interest you and your friends show in the club, are usually scheduled during spring break or immediately following spring semester.

Student Environmental Affairs Group
The Student Environmental Affairs Group is composed of students working with NIACC's Environmental Affairs Council to raise environmental awareness on campus. Members discuss environmental issues and make recommendations to encourage environment-friendly decisions and practices at NIACC.

STUDENT ORGANIZATIONS

Through the Student Activities Fee allocation, NIACC sponsors a wide variety of campus activities, student clubs and organizations, and resources. In addition to funding the Student Senate sponsored campus activities, student fees are allocated to athletics, student health services, intramurals, new student orientation, and clubs and organizations.

Organizations are activities which are associated with academic departments, but are designed to provide co-curricular opportunities for students with special interests and talents, but their activities are enjoyed by the entire student body.

Current Organization	Academic Department	Advisor	2001-2002 Allocation
Cheerleading	Physical Education	Ryan McGuire	$500
Collegiate Athletics	Physical Education	Ryan McGuire	50% of all student activities funds
Intramurals	Physical Education	Jason Hoenshell	$5,000
Instrumental Music	Music	John Klemas	$1,800
LOGOS	Journalism	Paul Peterson	$9,000
Phi Theta Kappa	Student Services	Jeff Platt	$300
Student Plays	Drama	Tim Slaven	$1,500
Student Senate	Student Services	Catherine Fields	$7,000
Vocal Music	Music	Jayson Ryner	$1,800

Each year every organization receives a 3% increase unless they submit a specific request.

Other student services/activities receiving Student Activities funding:

Health Services ..... $ 4,500
New Student Orientation ..... $ 3,000
Pathways to Success ..... $ 500

Dance Team

The NIACC Dance Team performs during halftime at basketball games and features routines developed by its members. The squad began in 1996 with 7 participants and grew to 9 members in 1997 through the process of tryouts. The team has been well received by fans at the games and is a great way to promote school spirit.

Instrumental Music

You can actually join up to four ensembles right at NIACC — The North Iowa Concert Band, North Iowa Symphony Orchestra, NIACC Jazz Ensemble, and NIACC Pep Band. The Concert Band and Symphony Orchestra are composed of NIACC students and community members from North Iowa, and membership in the Orchestra and Jazz Ensemble are by audition only. Private lessons are also available.

Intramurals

The intramural sports program provides you an opportunity to participate in a sport of your choice on both a competitive and informal recreational basis. Activities may include basketball, free-throw contest, golf, one-on-one basketball, softball, flag football, volleyball, weight lifting, soccer, coed volleyball, card tournament, and more.

NIACC does not subscribe to an insurance program for intramural participants. Students who participate in any intramural event must assume their own responsibility for insurance coverage.

LOGOS

Explore your journalism talents, from reporting to photography to advertising sales through LOGOS, the student newspaper. Published by students, LOGOS is an award-winning publication released every other week. Working diligently on the paper will give you one semester hour of credit for each term you contribute. The paper's editors receive scholarships and often have an opportunity to participate in national newspaper conventions.

Phi Theta Kappa

Expand your scholarship opportunities after NIACC by joining the College's Alpha Psi Beta Chapter of PTK, an international honor society that recognizes the academic accomplishments of students attending two-year colleges. To become a member, you must have a 3.5 GPA after completing 24 semester hours at NIACC and be enrolled in at least three semester hours of classes.

Vocal Music

If you like to sing, join the Concert Choir, which is open to all students, or sign up for private voice lessons. You might also try out for the NIACC Singers show choir, which performs locally and takes a major tour every other year to such places as Florida or Hawaii.

STUDENT SENATE

Student Senate is defined as a one-credit course designed to act as both the student governing body as well as the campus activities board. Senate is open to any student who wants to become involved.

After registering for the one-credit class, a senator becomes a voice for student concerns, participates on various decision-making committees, becomes a project leader for one of the Senate-sponsored activities (comedian, lecture, musician, dance, community service project, etc.), and helps as a student volunteer when called upon either for Senate or other departments.

A senator is eventually graded on his/her participation, leadership, and volunteering in the various activities sponsored by Senate. In addition to representing Senate as a leader on campus, each senator is able, based on his/her efforts, to travel to various leadership and development conferences.

The process by which the Student Activity Fees are allocated out is conducted by the Student Senate through an outline of criteria established for the purpose of defining the groups as an approved club or organization, discussion of requested funds, and a three-fourths majority vote.

Staff

PRESIDENT

Michael Morrison, *President*; 1989
A.A., Austin Junior College; B.A., M.A., and Ph.D., University of Minnesota

Linda See, *Assistant to the President;* 1968
Graduate, Hamilton Business College; A.A., North Iowa Area Community College; additional course work at Iowa State University

ACADEMIC AFFAIRS

Ann-Morrison (Tucki) Folkers, *Interim Vice President for Academic Affairs;* 1976
B.A., University of Iowa; M.S., Iowa State University; Developmental Education Certification, Appalachian State University

Ronda Smith, *Administrative Assistant;* 1995
Diploma, Spencer School of Business; A.A., North Iowa Area Community College; additional course work at Minnesota State University, Mankato, and Buena Vista University

Academic Faculty

Agricultural Technology

Larry Eichmeier, *Division Head;* 1982
A.A., North Iowa Area Community College; B.S. and M.S., Iowa State University; additional course work at Iowa State University

Chris Chodur, *Herdsman/Farm Worker;* 1993
A.A.S., North Iowa Area Community College

Kevin Muhlenbruch, *Agriculture Instructor;* 1988
B.S., Iowa State University; Certified Professional Agronomist; additional course work at Buena Vista University, Drake University, and Iowa State University

Laura Schurtz, *Agriculture Instructor;* 1990
A.A.S., North Iowa Area Community College; B.A., Buena Vista University; M.S., Drake University

Business

Gary Christiansen, *Division Head/Instructor;* 1979
B.A. and M.A., University of Northern Iowa; additional course work at University of Northern Iowa and Mankato State University

Wendy Demaray, *Business Division Associate;* 1991
Diploma, North Iowa Area Community College

Lynn Anderson, *Accounting, Computer Applications;* 1988
B.S., Mankato State University; M.A., University of Northern Iowa; C.P.A., Iowa Board of Accountancy; additional course work at Mankato State University, Drake University, and University of Iowa

Dan Chodur, *E-Commerce, Web Design & Development,* 2000
A.A., North Iowa Area Community College; A.S. North Iowa Area Community College; B.A., University of Northern Iowa; additional course work at Iowa State University

Mary Pat Cole, *Human Relations,* 1990
B.A., University of Northern Iowa; M.S.E., Drake University; additional course work at Iowa State University, Drake University, and Buena Vista University

Michael Dirksen, *Information Systems Technology;* 1988
B.A., Augustana College; B.S. and M.S., Mankato State University

Lawrence Hibbs, *Retail Management Program Leader/Instructor;* 1981
B.A. and M.A., University of Northern Iowa

Neal Hirota, *IST/E-Commerce, Web Design and Development;* 2000
A.S.B., North Iowa Area Community College; B.S., Oregon State University; additional course work at Iowa State University

Tullio Hofstad, *E-Commerce, Web Design and Development;* 2000
A.A., North Iowa Area Community College; B.A., Wartburg College; additional course work at Drake University and Iowa State University

Keith Jaben, *Information Systems Technology;* 1999
Course work at Kirkwood Community College, Iowa State University, and the University of Iowa

Kacy Larson, *Office Technology Program Leader/Instructor;* 1993
A.A., North Iowa Area Community College; B.A., University of Northern Iowa; M.S., Winona State University

Greg Lauer, *Accounting*, 1999
A.A., North Iowa Area Community College; Diploma, Hamilton Business College; B.A., Upper Iowa University; M.S., Iowa State University; E.A., Internal Revenue Service; additional course work at the University of Phoenix; Jones International University

Jeanne McCurnin, *Office Technology, Computer Applications*; 1990
B.S., Moorhead State University. Additional course work at the University of Iowa

Mary Mosiman, *Information Systems Technology Program Leader/Instructor*; 1998
B.A., Buena Vista University; additional course work at George Washington University

Alice Schamber, *Office Technology, Electronic Spreadsheets, Introduction To Computers and Information Systems;* 1972
A.A., Ellsworth Junior College; B.A., University of Northern Iowa; M.A., University of Northern Colorado

Norb Thomes, *E-Commerce, Web Design, and Development;* 2001
B.S., University of Wisconsin - La Crosse

Health

Donna Orton, *Division Head;* 1977
B.A., Augustana College; R.N., Iowa 047797, M.S.N., University of Dubuque; additional course work at Iowa State University, University of Northern Iowa, University of South Dakota, Marycrest College, Drake University, and Morningside College

Terri Tell, *Secretary;* 1975
A.A., North Iowa Area Community College

Susan Callanan, *Physical Therapist Assistant;* 2000
B.S., Iowa State University; D.P.T., Creighton University; additional course work at Iowa State University and the University of Iowa

Laurie DeGroot, *Associate Degree Nursing;* 1988
A.A., North Iowa Area Community College; B.S.N., University of Iowa; M.S.N., Winona State University; Certified Clinical Nurse Specialist in Gerontological Nursing; A.R.N.P. Additional course work at University of Iowa and University of Northern Iowa.

Margaret Dunbar, *Associate Degree Nursing;* 1977
Mercy School of Nursing; Iowa 037216; B.A., Metropolitan State University; M.S.N., Clarkson College; R.N.; additional course work at University of Iowa

Jean Evenson, *Associate Degree Nursing;* 1985
R.N., B.S.N., University of Iowa; A.R.N.P., M.S.N., Mankato State University; A-073325; additional course work at Iowa State University, University of Iowa, and Mankato State University

Nancy Frederick, *Associate Degree Nursing;* 1976
B.S.N., Mount Mercy College; Iowa 048580; M.S., Iowa State University; M.S.N., Clarkson College; additional course work at University of Iowa, University of Northern Iowa, and Marycrest College; R.N.

Suzanne Murphy, *Practical Nursing; 2001*
A.D.N., North Iowa Area Community College; B.S.N., University of Iowa; additional course work at the University of Iowa; certified in Gerontology by American Nursing Credentialing Center

Carol Patnode, *Physical Therapist Assistant;* 1996
A.S., St. Mary's Junior College; P.T.A., Iowa 00463; B.A., Metropolitan State University; M.A., St. Mary's University of MN; additional course work at University of Iowa and University of Northern Iowa

Deb Stockberger, *Medical Assistant Program Leader;* 1997
Diploma, Medical Assistant and A.D.N., North Iowa Area Community College; Iowa 089856; B.S.N., University of Iowa; additional course work at Morningside College, Drake University, and University of Iowa

Humanities

Jim Zirnhelt, *Division Head;* 1969
Crosier Seminary; B.S. and M.S., Moorhead State University; Ed.D., Nova University; additional course work at University of Iowa, Iowa State University, and University of New Hampshire

Peggy Bang, *Visual Arts;* 1985
B.A., Iowa State University; M.S., Bank Street College of Education in cooperation with Parsons School of Design; Additional course work at Iowa State University, University of Iowa, Marycrest College and School of Visual Arts

Sally Becker, *Writing Lab Specialist;* 1975
Course work at North Iowa Area Community College

Mariestelle Brown, *Communications;* 1967
A.A., North Iowa Area Community College; B.A., University of Northern Iowa; M.A., University of Iowa; additional course work at the University of Iowa and Drake University

Diana Cameron, *Communication Skills;* 1997
B.A., Georgetown College; M.A., Tulane University; M.A., Comparative Literature, University of Chicago; additional course work at Iowa State University.

Joe Davis, *Communication Skills;* 2000
B.A., Mount Mercy College; M.A., Northern Michigan University; additional course work at Iowa State University

Carol Faber, *Visual Arts;* 1991
B.A., Morningside College; M.A., Iowa State University; additional course work at Iowa State University

Nancy Fallis, *Reading and Education Media;* 1998
B.A. and M.A., University of Northern Iowa; additional course work at Mankato State University, University of Iowa, Drake University, and Indiana University

John Groninga, *Communication Skills;* 1985
B.S. and M.A., Iowa State University

John Klemas, *Instrumental Music Director;* 1987
B.M.E. and B.M., Drake University; M.A., Washington State University

Mark Messer, *Composition;* 1988
B.A., Central College; M.A., University of Northern Iowa; additional course work at Iowa State University and Northwest Missouri State University

Paul Nagy, *Communication Skills;* 1972
B.A., Harpur College; M.A., (German) Schiller International University (Heidelberg); M.A. (TEFL) University of Northern Iowa; additional course work at State University of New York at Binghamton, State University College at Potsdam (New York), St. Lawrence University, State University College at Fredonia (New York), and Schiller College (Paris)

Paul Peterson, *Communication Skills/Journalism, LOGOS Advisor;* 1990
B.A. and M.E.A., University of Northern Iowa; additional course work at University of Iowa, University of Northern Iowa, and University of Minnesota

Borden Plunkett, *Communication Skills;* 1993
B.S., Southern Illinois University; M.S., Southern Illinois University

Karen Regal, *Communication Skills;* 1991
B.A., Central College; M.A., Mankato State University;

additional course work at University of Iowa, Drake University, and Minnesota State - Mankato

Jayson Ryner, *Vocal Music Instructor/Director;* 2001
A.A., North Iowa Area Community College; B.M.E., University of Northern Iowa; and, M.A., University of Northern Iowa

Charles Schroeder, *Spanish*, 2000.
B.A. and M.A., University of Northern Iowa; additional course work at Iowa State University

Geraldine Schwarz, *Reading and Literature*; 1986
B.A. and M.A., University of Northern Iowa; additional course work at University of Northern Iowa and University of Iowa

Timothy Slaven, *Speech and Theatre*; 1992
A.A., Iowa Central Community College; B.A., and M.A., University of Northern Iowa

Arlo Stoltenberg, *Communication Skills, Literature;* 1967
B.A., Central College; M.A., Northeast Missouri State University; Ed.D., Nova University; additional course work at Drake University, University of Iowa, University of Northern Iowa, and Iowa State University

Industrial

Gary Forbess, *Division Head/CNC Manufacturing Instructor;* 1997
A.A.S., Madison Area Technical College; B.S., State University of New York; additional course work at the University of Northern Iowa

Jennifer Patterson, *Murphy Manufacturing Technology Secretary;* 2000
A.A.S., North Iowa Area Community College; additional course work at Buena Vista University

Gregory Arrowood, *Automotive Services;* 1988
A.A., Iowa Lakes Community College; A.S.E. Certified Master Automobile Technician; additional course work at University of Iowa, University of Northern Iowa, and General Motors Training Center (Ankeny)

Dennis Brunsvold, *Mechanical Design Technology;* 1966
A.A., North Iowa Area Community College; B.T., University of Northern Iowa; additional course work at NSF Institute at the University of Illinois, Iowa State University, and Milwaukee Area Technical College

Robert Carney, *Climate Control;* 1999
A.A., North Iowa Area Community College; B.A. and M.A., University of Northern Iowa

Tom Crowley, *Climate Control;* 1993
Electronics, Austin Vocational Technical Institute; additional course work at Iowa State University

Gary Eckholt, *Manufacturing Technology;* 1997
A.A.S., Kirkwood Community College (CNC), E.M.T.A. License, Northwest Iowa Community College; additional course work at the University of Northern Iowa

Richard Grossen, *Tool & Die Technology*; 2001
Diploma and Associate Degree, Madison Area Technical College; additional course work at the University of Wisconsin-Stout

Robert Heimbuch, *Automotive Services Technology;* 1999
A.A.S., North Iowa Area Community College, A.S.E. Certified Automobile Technician; additional course work at Iowa State University

Dennis Krauth, *Mechanical Design Technology;* 1999
A.A.S., Faribault Area Vocational Technical Institute; additional course work at the University of Northern Iowa

Mark Poppe, *Automotive Services;* 1996
B.S., University of Wisconsin-Stout; Associate of Occupation Studies Degree, Universal Technical Institute; additional course work at Northern Arizona University; A.S.E. Certified Master Automobile Technician

Clifford Salmons, *Electronics;* 1981
A.A.S., North Iowa Area Community College; B.A., University of Northern Iowa; U.S. Navy Training Schools; White Motor Corporation Service Schools; M.Ed., Iowa State University

Andrew Wermes, *Building Trades;* 1996
B.A., Golden West College; B.A., California State University; M.A., Drake University; additional course work at the University of Northern Iowa

Natural Sciences

Dennis Vrba, *Division Head;* 1987
B.A. and M.A., University of Northern Iowa; additional course work at St. Mary's College, Iowa State University, University of Northern Iowa, and University of Iowa

Adriana Attleson, *Mathematics;* 1985
B.A., University of Northern Iowa; M.A., Iowa State University; additional course work at University of Northern Iowa

David Bernemann, *Engineering/Mathematics;* 1999
B.S., University of Iowa; M.S., West Virginia University; additional course work at Iowa State University

Joseph Chimeno, *Chemistry*, 1996
B.S., Lamar University; M.S., North Texas State University; M.A., University of Idaho; advanced work at Oregon State University, Middle Tennessee State University

Edward Dobrzynski, *Chemistry*; 1986
B.S., Villanova University; Ph.D., Iowa State University; NIH Postdoctoral Fellow, Johns Hopkins University

Patrick Galliart, *Biological Science;* 1993
B.S., Loras College; M.S. and Ph.D., Iowa State University

Caroline Goodman, *Mathematics;* 1995
B.S., Purdue University; M.S., University of Illinois; additional course work at Portland State University and Iowa State University

Brent Hamilton, *Mathematics*; 1998
B.S., University of Dubuque; M.S., Iowa State University

Paul Hertzel, *Mathematics*; 1998
B.S., Mankato State University; M.S., Iowa State University

Mark Kabele, *Natural Science Associate,* 1998
B.S., University of Wisconsin; additional course work at North Iowa Area Community College

Rachel Lamp, *Mathematics;* 1990
B.A., Marycrest College; M.S., Iowa State University; additional course work at the University of Iowa and St. Ambrose University

Kristin Mandsager, *Physical Science;* 1992
B.A., St. Olaf College; M.A., University of Northern Iowa; additional course work at Iowa State University

Paul Pistek, *Biological Science;* 1996
B.S. and M.S., Iowa State University

Kathy Rogotzke, *Mathematics;* 1994
B.A., St. Olaf College; M.A., Iowa State University; additional course work at North Iowa Area Community College and Kansas State University

Carol Schutte, *Biological Science;* 1987
B.S. and M.S., Iowa State University; additional course work at University of Illinois, St. Mary's College, University of Iowa, and University of Northern Iowa

Lisa Steiff, *Natural Science Secretarial Associate;* 1999
MCSE Certification, Hamilton College; A.A., Waldorf College; additional course work at Mankato State University

Mary Thede, *Mathematics;* 1989
B.A., Parsons College; M.S., Drake University; additional course work at Marycrest, Iowa State University, Kansas State, and University of Iowa

Craig Zoellner, *Biological Science;* 1992
B.A., Wartburg College; M.A., University of Northern Iowa; additional course work at University of Iowa, Iowa State University, Carleton College, University of Illinois, and Northwest Missouri State

Social Sciences

Jim Zirnhelt, *Division Head;* 1969
Crosier Seminary; B.S. and M.S., Moorhead State University; Ed.D., Nova University; additional course work at University of Iowa, Iowa State University, and University of New Hampshire

John Brietzke, *Economics;* 1980
B.S., University of Minnesota; M.B.A., University of Wisconsin; additional course work at University of Minnesota, University of Iowa, and Iowa State University

Patricia Crowe, *Psychology;* 1996
B.A., University of Northern Iowa; M.A., Bowling Green State University; additional course work at Bowling Green State University and the University of Iowa

Helen Karamitros, *Sociology;* 1994
A.A., North Iowa Area Community College; B.A. and M.A., University of Northern Iowa, M.A., Mankato State University; additional course work at Keene State College, NH, University of Northern Iowa, and Iowa State University

Steven Long, *Sociology/Marriage & Family;* 1990
B.A. and M.A., University of South Dakota; additional course work at Kearney State College (Nebraska)

Joseph (Fred) McCurnin, *Economics;* 1990
B.A., Augustana College; M.A., University of South Dakota; additional course work at North Dakota State University and University of Pennsylvania

Tom Oswald, *Education;* 1990
B.A., Luther College; M.A., University of Northern Iowa; additional course work at University of South Dakota, University of Iowa, and University of Oregon

Jeffrey Pilz, *American History;* 1993
B.S., University of Wisconsin at Stevens Point; M.A. and Ph.D., University of Minnesota

Jeff Platt, *Psychology;* 1997
B.A., St. Ambrose University; M.S., Iowa State University; additional course work at Iowa State University, University of Iowa, and University of Northern Iowa

John Schmaltz, *Government and History*; 1988
B.S., Minot State University; M.S., Southern Illinois University-Edwardsville; additional course work at Arizona State University; University of Nebraska, George Washington University, State University of New York at Stony Brook, University of Northern Iowa, Kearney State College, Wayne State College, Marycrest College, and Drake University

Michael Thede, *Geography and Western Civilization;* 1988
B.A., Parsons College; M.A., Northeast Missouri State University; Ph.D., University of South Florida; additional course work at Drake University, McGill University, Ohio State University, Bowling Green State University, and University of Iowa

Continuing Education

John Schladweiler, *Dean;* 1990
B.S., South Dakota State University; M.B.A., Mankato State University; additional course work at University of Iowa

Rita Foley, *Office Manager;* 1991
Course work at North Iowa Area Community College and Iowa State University

Jennifer Bergman, *Secretary*; 2000
A.S.B., North Iowa Area Community College

Cheryl Christians, *Secretary;* 1997
A.A., North Iowa Area Community College

Kathy Clemens, *Secretary;* 1993
Course work at Northwestern College

Pat O'Banion, *Secretary;* 1975
Diploma, Hamilton Business College; additional course work at North Iowa Area Community College, Breech Academy, and Mid-Continent Regional Training Center

Community Education

Barb Eisenmenger, *Garner Community Education Coordinator;* 1989
B.A., Buena Vista University; M.S., Iowa State University

Constance Glandon, *Charles City/Osage Community Education Coordinator*; 2000
B.A., Wartburg College; additional course work at Capella University

Kathy Millard, *Lake Mills Community Education Coordinator,* 1983
A.A., North Iowa Area Community College; B.A., University of Northern Iowa

Lana Miller, *Charles City Center Secretary;* 1986
Course work at North Iowa Area Community College

Training & Development

Bill Burdick, *Management and Professional Development Coordinator;* 2000
B.S., Drake University

Jody East, *Economic Development Training Coordinator;* 1992
B.S., Iowa State University; M.S., Drake University; and Jonah, the Goldratt Institute

Mary Nell Fullerton, *Computer Education Coordinator*, 2001
A.A., Austin Community College; B.S., Buena Vista College

Elizabeth Gales, *Director of Business Leadership and Cultural Events;* 1990
B.A., College of St. Catherine

John Sjolinder, *Trade and Industry Coordinator;* 2000
A.A.S., North Iowa Area Community College; B.S., Iowa State University

Developmental Education

Karmen Shriver, *Interim Director of Developmental Education, Adult Basic Education Coordinator;* 1989
B.A., University of Iowa; M.S., Iowa State University; additional course work at University of Northern Iowa

Jeanette Armstrong, *Adult Education Records Specialist;* 1989
A.S.B. and A.A., North Iowa Area Community College; additional course work at University of Iowa

Kay Haugen, *Assessment/GED Records Specialist;* 1978
Diploma, North Iowa Area Community College

Mary Miller, *Student Learning Center Associate;* 1990
Course work at University of Northern Iowa

Lori Quinlan, *Student Learning Center Instructor;* 1985
B.A., University of Northern Iowa; M.S., Iowa State University; additional course work at Drake University

Lee Weber, *Student Learning Center Instructor (P/T);* 1996
A.A., North Iowa Area Community College; B.A., University of Northern Iowa; M.B.A., University of Minnesota; additional course work at Mankato State University

Learning Services

Marty Lundberg, *Evening Dean;* 1989
B.A., University of Iowa; M.S., Iowa State University; additional course work at University of Northern Iowa, University of Iowa, and Iowa State University

Karen Dole, *Librarian;* 1980
B.A. and M.A., University of Northern Iowa; additional course work at Morningside College, Iowa State University, Drake, and University of Iowa

Cindy Eyberg, *Library Interlibrary Loan/Government Documents Assistant;* 1999
Course work at North Iowa Area Community College

Kim Kraus, *Library Circulation Assistant;* 1984
Clerical diploma, Hamilton Business College; additional course work at North Iowa Area Community College

Joyce Navratil, *Library Associate;* 1994
A.A., North Iowa Area Community College

Tech Prep

Fran DeGroote, *Tech Prep Coordinator*; 1998
B.A., University of Northern Iowa; additional course work at Iowa State University

Jean Ostrander, *Tech Prep Coordinator;* 1993
B.A., University of Iowa; M.S., Iowa State University

Ann Fisher, *Secretary;* 1994
A.A. and A.S., North Iowa Area Community College

ADMINISTRATIVE SERVICES

Sandra Gobeli, *Vice President for Administrative Services;* 1979
A.A., North Iowa Area Community College; Graduate, Hamilton Business College; B.A., Buena Vista University; M.B.A., Drake University

Mary Cole, *Administrative Services Office Manager;* 1988
Diploma, American Institute of Business; additional course work at Des Moines Area Community College

Denise Brooks, *Secretary/Receptionist;* 1987
Diploma, Hamilton Business College

Cheryl (Buffie) Ohden, *Copy Center Supervisor;* 1972
Diploma, Hamilton Business College

Auditorium

Timothy Slaven, *Manager,* 1992
A.A., Iowa Central Community College; B.A. and M.A., University of Northern Iowa

Business Office

Kathy Grove, *Accountant/Business Office Manager;* 1977
A.A., North Iowa Area Community College; additional course work at Iowa State University

Krystal Crandall, *Business Office Clerk*; 1998
Accounting Clerk with Computers Diploma and A.S.B., North Iowa Area Community College

Tanya Dadisman, *Accounts Receivable Clerk;* 2000
A.A., North Iowa Area Community College; B.A., University of Northern Iowa

Mindy Eastman, *Accounting Technician;* 1990
A.A., North Iowa Area Community College; additional course work at Buena Vista University

Beth Forbes, *Payroll Clerk/Bookkeeper;* 1977
A.A., North Iowa Area Community College.; additional course work at University of Northern Iowa

Tammy Hain, *Financial Aid/Bookkeeper;* 1985
A.A., North Iowa Area Community College

Valerie Harper, *Accounts Payable Clerk;* 1989
A.S.B., Accounting Diploma, Accounting Clerk Diploma, North Iowa Area Community College

Rhonda Nesheim, *Bookkeeper/Secretary*; 1996
A.S.B., North Iowa Area Community College

Human Resources

Shelly Schmit, *Director of Human Resources;* 1998
A.A., Des Moines Area Community College; B.S., Iowa State University; additional course work at Iowa State University

Tammie (T.J.) Hirv, *Secretary;* 1991
A.S.B. and A.A., North Iowa Area Community College; additional course work at University of Northern Iowa, University of Iowa, and Buena Vista University

Physical Plant

Tony Pappas, *Director, Physical Plant;* 1983
Licensed Master Electrician — International Brotherhood of Electrical Workers; A.A., North Iowa Area Community College; additional course work at Iowa State University

Mitchell Olson, *Buildings Supervisor;* 1995
A.A.S., North Iowa Area Community College

Don Smith, *Custodial Supervisor;* 1992
Journeyman Electrician, I.B.E.W., A.A., North Iowa Area Community College; additional course work at North Iowa Area Community College

Bill Baylor, *Custodial Maintenance;* 1994
Journeyman Electrician, I.B.E.W.; additional course work at North Iowa Area Community College

Bill Beach, *Student Housing Custodian;* 1981

Loy Conn, *Building Maintenance;* 1985
Course work at Iowa State University

Delmer Daniels, *Custodian*; 1999
Course work at Ellsworth Community College

Stanley Emerson, *Grounds Maintenance;* 1984
Course work at North Iowa Area Community College

Dennis Felland, *Custodial Maintenance;* 1995
Course work at Mesa Community College and Arizona State University

Kathy Foster, *Facilities Secretary;* 1998
A.A., North Iowa Area Community College

Ron Graff, *Custodian*; 2001

Robert Henry, *Building Maintenance;* 2002
A.A.S., Griffin College

Jody Holmes, *Custodial Maintenance;* 2002

Phyllis Lauer, *Custodian;* 1997
Certificate, Hibbing Junior College; additional course work at University of Minnesota, Palomar Junior College and North Iowa Area Community College

June Lauritson, *Custodian;* 2000

Gary Loftis, *Automotive Maintenance*; 2000
Diploma, University Trade Schools

Tim Meyer, *Grounds Maintenance*; 1998

Mike Norcross, *Custodian*; 1999

Steven Olson, *Custodian;* 2002

Kevin Petersen, *Building Maintenance*; 2001
A.A., North Iowa Area Community College; B.S., Northwest Missouri State University; course work at Waldorf College

Alvin Reiter, *Student Housing/Custodian;* 1977

Kay Schumaker, *Student Housing Custodian;* 1991

Rusty Seidel, *Groundskeeper;* 1984
A.A., North Iowa Area Community College

Michael Shea, *Custodian;* 2001

Duane Teska, *Custodian*; 1999

Cheryl West, *Student Housing Custodial Coordinator;* 1976

Jerry White, *Auditorium Technician;* 1980

Timothy Winter, *Technician*; 1999
Course work at North Iowa Area Community College

INSTITUTIONAL ADVANCEMENT

Tammy Hove, *Director of Institutional Advancement;* 1989
A.A., North Iowa Area Community College; B.A. and M.B.A., University of Iowa

Dana Heimbuch, *Secretary/Administrative Assistant;* 1998
A.S.B., North Iowa Area Community College

Sethanne Peterson, *Community Relations Coordinator;* 2001
A.A., North Iowa Area Community College; B.A., University of Northern Iowa

Linda Rourick, *Campus Facility/ICN Scheduler;* 1994
B.S., Iowa State University

Cinda Rustad, *Interim Foundation Director;* 1990
Diploma, Hamilton Business College

Deb Smith, *Campus Facility/ICN Scheduler (P/T);* 1997
Diploma, North Iowa Area Community College

James Zach, *Graphic Designer;* 1995
A.A., North Iowa Area Community College; B.A., Iowa State University

JOHN PAPPAJOHN BUSINESS AND ENTREPRENEURIAL CENTER

Douglas Morse, *Director;*1999
B.A., Luther College; M.A., University of Iowa; M.B.A., University of Iowa

Christine Nonnweiler, *Administrative Assistant/Secretary;* 1999
Diploma, Spencer School of Business; B.A., Buena Vista University; additional course work at Iowa State University

Tim Putnam, *Entrepreneurship Client Manager;* 2000
B.S., Kansas State University

Small Business Development Center

Richard Petersen, *Director of Small Business Development Center;* 1985
B.S., Northwest Missouri State University

STUDENT SERVICES

Karen Pierson, *Vice President for Student Services;* 1996
B.S., Northwest Missouri State University; M.S., University of Nebraska; Ph.D., Iowa State University

Janice Christensen, *Office Manager;* 1969

Admissions

Rachel McGuire, *Director of Admissions;* 1993
A.A., North Iowa Area Community College; B.A., University of Northern Iowa; M.F.C.S., Iowa State University; additional course work at Mankato State University

Shawn Miller, *Enrollment Specialist;* 1999
B.A., Iowa State University; additional course work at Buena Vista University

Sandra Harrington, *Secretary*; 1981
Diploma, North Iowa Area Community College

Jason Hoenshell, *International Recruiter*; 2000
B.S., Bartlesville Wesleyan College

Steven Krafcisin, *Enrollment Specialist;* 1997
B.S., University of Iowa; additional course work at University of North Carolina, Iowa State University, and Loras College

Todd Rima, *Enrollment Specialist;*2001
B.A., University of Northern Iowa

Athletics

Ryan McGuire, *Director of Athletics;* 2001
A.A., Black Hawk College; B.A., University of Northern Iowa; M.S., Iowa State University

Jody Fink, *Secretary*; 1985
A.S.B., North Iowa Area Community College

Jason Hoenshell, *Soccer Coach/Intramural Coordinator*; 2000
B.S., Bartlesville Wesleyan College

Steven Krafcisin, *Head Men's Basketball Coach;* 1997
B.S., University of Iowa; additional course work at University of North Carolina, Iowa State University, and Loras College

Rachel McGuire, *Head Volleyball Coach;* 1999
A.A., North Iowa Area Community College; B.A., University of Northern Iowa; M.F.C.S., Iowa State University; additional course work at Mankato State University

John Oertel, *Head Women's Basketball Coach, Assistant Football Coach;* 1984
A.A., North Iowa Area Community College; B.S., Iowa State University; M.A., University of Iowa

Richard Ramsey, *Head Football Coach;* 1984
B.S., Peru State College; M.S., Northwest Missouri State University; additional course work at Wayne State College, Kearney State College, and Iowa State University

Counseling/Academic Advising

Terri Bonner Ewers, *Director of Counseling/Student Support Services;* 1988
A.A., North Iowa Area Community College; B.A., University of Northern Iowa; M.S., Iowa State University; L.M.S.W.; additional course work at Marycrest College, University of Iowa, Iowa State University, and Drake University

Angie DeVries, *Secretary,* 1998
A.S.B., North Iowa Area Community College

Kay Field, *Counselor/Cooperative Education;* 1990
A.A., Rochester Junior College; B.S., St. Cloud State University; M.Ed., Iowa State University; additional course work at Drake University, Marycrest College, and University of Iowa

Trudy LaBarr, *Counselor*, 1998
B.S.E., Arkansas State University; M.R.C., Arkansas State University; Ed.S., Arkansas State University; additional course work at Peabody College and Vanderbilt University

Financial Aid

Mary Bloomingdale, *Director of Financial Aid*; 1991
B.A., University of Iowa

Michelle Petznick, *Associate Director of Financial Aid;* 1996
A.A., North Iowa Area Community College; B.A., University of Northern Iowa

Carla Alexander, *Financial Aid Secretary;* 1995
Course work at University of Missouri

Jacki Lowe, *Financial Aid Secretary;* 1999
Course work at North Iowa Area Community College

Housing

Mitzi DeGroote, *Housing Security;* 1997
A.A., Ellsworth Community College; B.A., University of Northern Iowa

Catherine Fields, *Housing Head Resident/Student Senate Advisor;* 2001
B.A., Southwest State University

Lynn Huber, *Housing Security;* 1997
B.S., Southwest Baptist University; additional course work at Iowa Lakes Community College, Northwestern State University of Louisiana, and Grandview College

Richard Ramsey, *Housing Head Resident;* 1984
B.S., Peru State College; M.S., Northwest Missouri State University

Lois Spieker, *Operations Manager & Computer Support Technician;* 1989
A.A., North Iowa Area Community College

Registration

Larry Mozack, *Registrar;* 1974
A.A., North Iowa Area Community College; B.A., University of Northern Iowa; additional course work at Iowa State University

Mary Wendt, *Assistant Registrar/Records Office Manager;* 1976
A.A., North Iowa Area Community College

Maryls Katuin, *Records Office Secretary;* 1979
Diploma, North Iowa Area Community College

Sherrie Woods, *Records Office Secretary*; 1998
Diploma, North Iowa Area Community College

Sherry Zuke, *Financial Aid/Records Office Secretary*; 1978
A.A., North Iowa Area Community College; additional course work at University of Iowa

Student Support Services Project

Terri Bonner Ewers, *Director of Counseling/Student Support Services;* 1988
A.A., North Iowa Area Community College; B.A., University of Northern Iowa; M.S., Iowa State University; L.M.S.W.; additional course work at Marycrest College, University of Iowa, Iowa State University, and Drake University

Jennifer Aydelotte, *Secretary*, 1998
A.A., North Iowa Area Community College; additional course work at University of Northern Iowa

Kathryn Long, *Program Coordinator-Student Support Services*; 2002
B.A., Clarke College; M.P.S., Loyola University; L.M.S.W.

Jessica Putnam, *Tutor Coordinator/Instructor;* 1988
B.A., University of Northern Iowa; additional course work at the University of Northern Iowa, Marycrest College, Drake University, Iowa State University, and University of Iowa

Marilyn Smith, *Counselor;* 1994
B.S., Iowa State University; M.A.E., University of Northern Iowa; L.M.S.W.; additional course work at Northern Illinois University, Drake University, Iowa State University, and University of Iowa

Vocational Rehabilitation

Steve J. Faulkner, *Rehabilitation Counselor;* 1989
B.A., Augustana; D.D.S., University of Iowa; M.A., University of Iowa

TECHNOLOGY SERVICES

Mark Greenwood, *Director of Technology Services;* 1989
B.A., Central College

Steven Bendickson, *Computer Technician;* 1997

Diane Bissig, *Writing Analysis System Administrator/ Programmer-Analyst;* 1995
Diploma, Indian Hills Community College

Brian Charlton, *Computer Lab Technician Supervisor;* 1999
A.A.S. Degree, Hamilton Business College; A.A. Degree, Iowa Central Community College

Jim Degen, *Applications Programmer/Network Manager;* 1989
A.A., North Iowa Area Community College; B.S., Iowa State University; additional course work at North Iowa Area Community College

Alan Haight, *Media Technician*; 2000
AST, United Electronics Institute

Judith Henry, *Systems Administrator/Programmer-Analyst,* 1999
B.A., University of Iowa; additional course work at Rochester Institute of Technology, IBM, and Oklahoma State University

Carol Janssen, *Help Desk/Media Support Technician;* 2000
Diploma, American Institute of Commerce

Dennis Klemas, *Computer Technician,* 1998
A.A.S., North Iowa Area Community College

Merlin Klemmer, *Computer Technician;* 1999
Graduate, DeVry Technical Institute; Graduate, Brown Institute; Course work at Benchmark Network Systems

Bruce McKee, *Instructional Technology Coordinator;* 1991
B.F.A., University of Minnesota; M.A., University of Northern Iowa

Lois Spieker, *Operations Manager & Computer Support Technician;* 1989
A.A., North Iowa Area Community College

WORKFORCE DEVELOPMENT PARTNERSHIP

Nancy Bair, *Regional Director;* 1990
B.A., University of Iowa; additional course work at Marycrest University and Drake University

Jennifer Kammeyer, *Executive Officer;* 1998
A.S.B. and A.A., North Iowa Area Community College; B.A., Buena Vista University

Donna Petersen, *Office Manager;* 1983

Economic Development

Terry Schumaker, *Director of Economic Development/ Special Projects;* 2000
A.A., North Iowa Area Community College; B.S., Minnesota State University

North Iowa Career Center

Kim Caponi, *Director*, 1997
B.A., Union College.

Susan Steig, *Secretary;* 1978
Diploma, North Iowa Area Community College

PROMISE JOBS/Welfare-to-Work

Molly Anderegg, *Workforce Advisor*; 2000
B.A., University of Iowa

Bonnie Glidden, *Workforce Advisor;* 2000
A.A., North Iowa Area Community College; B.S., Mankato State University

Judith Lickteig, *Workforce Advisor;* 1999
L.P.N., North Iowa Area Community College

Jerold Magnuson, *Workforce Advisor*; 1998
A.S., New England Institute of Technology; A.A., North Iowa Area Community College; B.A., Buena Vista University

Duane Meyer, *Workforce Advisor;* 1986
A.A., North Iowa Area Community College; B.A., University of Northern Iowa; additional course work at Iowa State University and University of Northern Iowa

Heather Wright, *Workforce Advisor*; 2000
B.A. University of Northern Iowa

Workforce Investment Act

Cynthia Abben, *MIS Specialist;* 1976
Diploma, Hamilton Business College

Mickey Funkhouser, *Employment Training Specialist;* 1991
B.A., University of Iowa; additional course work at University of South Dakota, University of Northern Iowa, and Marycrest College

Janice Grandstaff, *Employment Training Specialist;* 1983
B.A., University of Northern Iowa

Index

A

Academic/Disciplinary Policies **184**
Accreditation **4**
Admissions
Applying to the College 199
Orientation 199
International Students 199
Adult Basic Education **12**
Agricultural
Agricultural Operations Management 20
Agricultural Sales and Service 21
Agricultural Marketing and Finance 21
E-Agribusiness 22
NIACC Farm Lab 19
Assessment/Testing **12**
Associate Degree Nursing **77**
Associate Degrees
Associate Degrees 5, 214
Associate in Applied Science 7, 216
Associate in Arts 5, 216
Associate in General Studies 7, 216
Associate in Science 6, 215
Associate in Science - Business 6, 215
Associate in Science - Medical Secretary 6, 215
Auditing **215**
Auditorium **9**
Automotive Programs
Automotive Service 99
Automotive Service Technology 99

B

Board of Directors **4**
Building Trades
Building Trades - Day 102
Building Trades - Evening 102
Business
Accounting with Computers/Diploma 29
Accounting/Associate in Science - Business Degree 30
Administrative Secretary - Degree 57
Administrative Legal Secretary - Degree 60
Administrative Medical Secretary - Degree 58
Administrative Medical Secretary Degree Transcription Specialist Option 59
E-Commerce, Web Design and Development 34
Entrepreneurship and Small Business Management 42
Financial Management/Insurance Program 43
General Business 44
General Secretary - Diploma 64
Information Systems Technology 35
Legal Secretary - Diploma 65
Marketing and Sales Option 46
Marketing/Management 42
Medical Assistant 73
Medical Secretary - Diploma 66
Medical Transcription Diploma 66
Office Technology 56
Retail Management 47
Software Appliations Specialist 48, 67
Sport & Fitness Management 49
Supervision and Management 50

C

Career Programs
Agricultural Technology 17
Business 27
Health 71
Industrial Technology 97
Public Service 93
Certifications **8, 217**
Climate Control **104**
College Services **194**
College Transfer Programs
Accounting 126
Agriculture and Agricultural Related 126
Art 127
Art Education 127
Athletic Trainer 127
Biology 127
Biology and Environmental Science 127
Business 128
Chiropractic 130
Coaching 130
Computer Science 130
Conservation 131
Criminal Justice 132
Dentistry 132
Education 132
Engineering 136
Environmental Science Policy 137
Exercise Science 138
Graphic Arts 138
Home Economics 138
Human Services 138
Industrial Technology 139
Information Systems Technology/MIS 140
Journalism 141
Law 141
Liberal Arts/Undecided 142
Marketing 142
Medical Technology 142
Mortuary Science 143
Music 143
Nursing 143
Occupational Therapy 144
Optometry 144
Pharmacy 144
Physical Education 145
Physical Science 146
Physical Therapy 146
Physician 146
Physician Assistant 147
Political Science 147
Psychology 147
Public Relations 147
Radiology 148

Recreation 148
Rehabilitation Services 148
Social Work 148
Sport Management 149
Theatre 149
Veterinary Medicine 149
Visual Arts 149
Computer Labs 193
Counseling 201
Course Descriptions
Art 156
Business 157
Education 164
Engineering 165
English 165
Experiential Learning 178
Foreign Languages 167
Mathematics 169
Music 170
Natural Sciences 172
Other Electives 179
Physical Education 171
Social Sciences 175
Speech & Theatre 177
Credits and Grading 212
Credit by Examination 214

D

Degrees
Associate Degrees 5, 214
Associate in Applied Science 7, 216
Associate in Arts 5, 214
Associate in General Studies 7, 216
Associate in Science 6, 215
Associate in Science - Business 6, 215
Associate in Science - Medical Secretary ... 6, 215
Development Education Division
Assessment/Testing 12
Basic Skills 12
Development Education Division 12
Literacy/Adult Basic Education 12
Student Learning Center 12
Diplomas
General Studies Diploma 7, 216
Program Diplomas 7, 216

E

E-Commerce, Web Design and Development 34
Electromechanical Systems Technology 107
E-mail... 192
Emergency Procedures 196
Entrepreneurial Training and Support 8
Experiential Learning
Cooperative Education Program 12, 210
Individualized Competency-Based Education Program (ICBE) 12

F

Facilities / Services 8
Financial Aid and Scholarships 205
Fire Science 96
Foundation 9
Fresh Start 84

G

General Education 5
General Information 4
General Machinist 112
Grade Appeal Process 185
Graduation 219

H

Hall of Fame 219
Health
A.A.S. Paramedic 89
ADN Option for Licensed Practical Nurses 80
Associate Degree Nursing 77
Medical Assistant 73
Medical Laboratory Technician 75
Nurse Aide 91
Physical Therapist Assistant 84
Practical Nursing 82
Regional Health 89
High School Partnerships
Articulation 124
Career Readiness Council 124
Post-Secondary Enrollment Options 124
Tech Prep 124
Honors
Dean's List 219
Graduation Honors 219
Hall of Fame 219
Honors Program 213
Phi Theta Kappa 226
Housing
Housing 211
Housing Requirements 211

I

Industrial Electives 122
Industrial Technology
Automotive Service 99
Automotive Service Technology 99
Building Trades - Day 102
Building Trades - Evening 102
Climate Control 104
Electromechanical Systems Technology 107
General Machinist 112
General Machinist Evening 115
Industrial Technology 98
Mechanical Design Technology 117
Tool and Die Technology 112
Welding - Evening Program 121

Information Systems Technology **35**
Instructional Resources **12**
Assessment/Testing 12
Basic Skills 12
Institutional Purposes **4**
Instructor Complaint Policy **186**
International Students **199**
Internet **192**
Iowa Communications Network (ICN) **13**

L

Law Enforcement **93**
Learning Services
Learning Services 13
Library 13

M

Mechanical Design Technology **117**
Medical Assistant **73**
Medical Laboratory Technician **75**
Mission of the College **4**

N

NIACC Farm Lab **19**
North Iowa Career Center **210**
North Iowa Community Auditorium **9**
Nurse Aide **91**

O

Office Hours **10**
Orientation **199**

P

Paramedic **89**
Physical Therapist Assistant **84**
Post-Secondary Enrollment Options **124**
Practical Nursing **82**
Probation **184**
PROMISE JOBS/Welfare-to-Work **238**
Public Service
Law Enforcement 93
Fire Sciene 96

R

Regional Health
A.A.S. Paramedic 89
Nurse Aide 91
Registration and Records **212**
Residency Policy Guidelines **220**

S

Small Business Assistance **9**
Special Needs **201**
Staff
Academic Affairs 230
Admissions 236
Administrative Services 234
Agricultural Technology 230
Athletics 236
Auditorium 235
Business Division 230
Business Office 235
Community Education 234
Continuing Education 233
Counseling/Academic Advising 237
Developmental Education 234
Economic Development 238
Entrepreneurial Center 236
Financial Aid 237
Health 231
Housing 237
Human Resources 235
Humanities 231
Industrial 232
Institutional Advancement 236
Learning Services 234
Natural Sciences 232
North Iowa Career Center 238
John Pappajohn Business and Entrepreneurial Center 236
Physical Plant 235
President 230
PROMISE Jobs/Welfare-to-Work 238
Registration 237
Small Business Development Center 236
Social Sciences 233
Student Services 236
Student Support Services Project 237
Technology Services 238
Tech Prep 234
Vocational Rehabilitation 237
Workforce Investment Act 238
Workforce Development Partnership 234
Student Clubs
AITP 224
Ag Club 224
Art Club 225
Automotive Club 225
Campus Outreach 225
Forum Club 225
Karate Club 225
Math Club 225
Multicultural Student Union 225
Nursing Club 225
Older Wiser Learners 225
Physical Therapist Assistant Club 225
Scuba Club 225
Ski and Snowboard Club 225
Student Environmental Affairs Club 225
Student Learning Center **8, 12**

Student Organizations
Cheerleading....226
Collegiate Athletics....226
Dance Team....226
Intramurals....226
Instrumental Music....226
LOGOS....226
Phi Theta Kappa....226
Student Plays....226
Student Senate....227
Vocal Music....226
Student Handbook
Academic/Disciplinary Policies
Academic Probation/Suspension....184
Alcohol Policy....187
Fresh Start....184
Grade Appeal Process....185
Instructor Complaint Policy....186
Sexual Harassment Policy....186
Student Conduct Code....187
Technology Policy....192
College Services
Bookstore....194
Bus Service....194
Cafeteria....194
College Operating Hours....194
Library....194
Lost and Found....195
Parking and Security....195
Emergency Procedures
General....196
Reporting....196
Fire....196
Tornado....196
Inclement Weather....196
Safety Awareness....197
Student Services
Admissions
Applying to the College....199
International Students....199
Orientation....199
Collegiate Athletic Program
Coaches....200
Athletic Conference....200
Eligibility....200
Athletic Scholarships....200
Counseling
Academic Advising....201
Career Counseling....201
Special Needs....201
Student Health....201
Student Support Services....204
Substance Abuse Prevention....204
Vocational Rehabilitation....204
Financial Aid and Scholarships
Federal and State Financial Aid....205
Grants/Work Study/Loans....205
Satisfactory Progress for Financial Aid Recipients....206
Scholarships....207
Veterans' Benefits....209
North Iowa Career Center....210
On-Campus Housing....211
Registration and Records
Academic Transcript....212
Changes in Registration....212
Classification of Students....212
Credits and Grading....212
Honors Program....213
Credit by Examination....214
Degree Requirements....214
Family Education Rights and Privacy Act (FERPA)....217
Graduation....219
Payment Plans/Policies....219
Registration Process....220
Residency Policy Guidelines....220
Title IV Recipients Refund and Repayment Policy....221
Tuition and Fees....222
Tuition Refund....223
Student Clubs....224
Student Organizations....226
Student Senate....227
Student Support Services....204

T

Technology Policy....192
Technology Services....13
Tech Prep....124
Title IV Recipients....221
Tool and Die Technology....112
Transfer Credits
Associate in Arts....214
Associate in Science....215
Associate in Science - Business....215
Tuition and Fees....222
Applied Music Fees....223
Beginning Piano Fees....223
Multi-Layer Switching Course Fee....223
Network Routing Course Fee....223
Network Remote Access Course Fee....223
Network Support Course Fee....223
Other Fees....223
Scuba Diving Course Fee....223
Tuition/Fees Refund Policy....223

V

Veterans' Educational Benefits....209
Vocational Rehabilitation....204

W

Web Development....192
Welding - Evening Program....121
Withdrawal from College....212