

**NORTH IOWA AREA
COMMUNITY
COLLEGE**

1999 - 2000

**General
Catalog &
Student
Handbook**

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North Iowa Area Community College
500 College Drive
Mason City, IA 50401
1-888-GO NIACC or (515)422-4245
Web Address: www.niacc.com
E-mail Address: request@niacc.cc.ia.us

General Information

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General Information

LOCATION AND HISTORY

The North Iowa Area Community College (NIACC) is located just off Highway 18, 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 (Merged Area II) 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 the 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 by the North Central Association of Colleges and Schools since 1919 and received a full ten-year reaccreditation in 1993.

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:

1. Empower individuals by stimulating their:

- * curiosity about the natural and social universe.
- * intellectual integrity, appreciation of diversity, informed ethical values, and the aspiration for the best for one's self, one's family, one's community, and the world.
- * joy of learning and use of creative and critical thought, including skills of intellectual problem solving, effective reading, clear writing, and articulate speaking.
- * willingness and ability to exercise personal leadership, creativity, and adaptability to change.
- * constructive use of leisure time, participation in recreational activities, and development of physical and mental well-being.
- * understanding, appreciation, and participation in the arts and humanities.

2. 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 postsecondary educational programs and other services offered by the College.

3. Enable individuals to complete the first two years of a baccalaureate program within the region and, upon successful completion, to achieve efficient and effective transfer to senior colleges.

4. Ensure that individuals have opportunities to prepare themselves for employment in occupations in demand in a global society.

5. Ensure that individuals have opportunities to continue learning throughout their lifetime.

6. Ensure that employers have opportunities to develop and maintain competitive workforces.

7. Extend the reach of College resources through progressive partnerships with agencies and entities in communities served by the College.

8. Promote understanding, appreciation, and cooperation among the widest possible variety of cultures.

9. Instill confidence and pride in all who come into contact with the College by fostering a commitment to excellence in all College endeavors.

BOARD OF DIRECTORS

Jim Benjegerdes, Farmer, Mason City, President, 1980-2001

Kevin Kolbet, Realtor, Osage, Vice President, 1986-2001

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

Terry Cobb, Vice President, Marketing and Customer Service, Team Quest Corporation, Clear Lake, 1998-2000

Rosie Hussey, Fund Development Director, Girl Scout Council, Mason City, 1992-2001

Karen Knudtson, Realtor, Mason City, 1989-1999

Colin Robinson, President - First Citizens National Bank, Charles City, 1997-2000

Rick Salvesen, Vice President - Engineering, Mid:Com, Hampton, 1996-1999

Raymond Smith, Jr., Farmer, Buffalo Center, 1992-2000

Linda Upmeyer, Nurse, North Iowa Mercy Health Center, Garner, 1990-1999

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. 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, 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.

Economic Development Assistance

If your company is hiring new employees, or if existing employees need training, NIACC's Economic Development Department may be able to provide funds, utilizing the Iowa New Jobs Training Program or the Iowa Jobs Training Program, to lower the cost of training these employees. Some restrictions apply.

For more information, call (515) 422-4353.

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 (515) 422-4111.

Independent Study Lab (ISL)

The Independent Study Lab (ISL), 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 or developmental math.
3. Validate their skills by participating in a testing program such as GED, ICBE, CLEP.

For further information, students should contact their counselor, the ISL 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.

Open computer labs in McAllister Hall and in the college dormitories are available to all students to use for instructional application, checking e-mail, or web browsing.

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 Independent Study Lab (ISL) 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 NIACC Library is a congressionally-designated United States government depository. The Library's online catalog makes it easy to locate resources. For more information on the Library and its services, see page 11.

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.

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 (515) 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. and 5:30 - 8:30 p.m. Monday through Friday. Vending machines are also available.

Student Housing

The NIACC Dormitory Corporation operates nonprofit residence halls which accommodate up to 475 single men and women on a site adjoining the campus to the north. The dormitories feature 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, the use of tobacco products is prohibited in College facilities.

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 express benefit of the College. It is governed by a 19-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, sex, 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 515-423-1264.

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 (515)422-4245 or toll free 1-888-GO NIACC (466-4222), ext. 4245. Web Site: www.niacc.com
E-mail: request@niacc.cc.ia.us**

Instructional Resources

DEVELOPMENTAL EDUCATION DIVISION

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 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): Adults functioning below the ninth grade level study basic reading, writing, and mathematics.
- * General Educational Development (GED): Adults functioning below the twelfth grade level 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 in residential or day-care institutions 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): Preparation in conversational English, reading, and writing for non-native speakers.

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 Employment and Career Services Office at 515-422-4370.

Individualized Competency-Based Education Program (ICBE)

The Individualized Competency-Based (ICBE) program is an individually tailored, student-designed program leading to an Associate Degree. The ICBE program is designed for adults who have (1) 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.

Independent Study Lab (ISL)

The ISL, 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 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 28,000 general volumes, 4,000 reference volumes, 15,000 nonbook media items, and 42,000 government publications. Subscriptions include 8 national newspapers, 44 NIAD area newspapers, and 377 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 70 hours per week, including evenings and Saturdays. A professional staff of two full-time librarians and one part-time librarian, assisted by three full-time assistants, and four 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. A library handbook is also available. A student ID card is required to check out materials. ID's are available in Student Services.

Computers, 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 health-related data bases are searchable through the Iowa Health Information Network. A number of electronic databases, including a full-text periodical database, newspapers, and encyclopedias on the World Wide Web can be accessed through the library's web page. Many more CD-ROM databases, including ERIC, the Des Moines Register, and government reference resources 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. Four Internet workstations are available for using the World Wide Web, and a CD-ROM network will soon provide access to periodical indexes and other resources via the campus network.

The Iowa Communications Network (ICN)

NIACC is proud to be a part of the ICN, a statewide two-way interactive video/audio/data network with over 600 electronic classrooms, connecting every county in the state. NIACC has four telecommunication classrooms at the main campus in Mason City and one at the NIACC Charles City Center. In addition, there are ICN classrooms at nearly all area high schools. Students can participate in a variety of college classes at the remote sites, communicating with the instructor and other students via two-way video and audio.

TECHNOLOGY SERVICES

The Technology Services Division provides technology-related support to the campus in the areas of computer services, media services, and telecommunications. Technology Services staff members set up and maintain the computers in the computer labs, data networks, Internet, and computer applications. In addition, staff members support classroom presentation equipment such as overhead projectors, video projectors, large screen computer displays, and interactive television classrooms (ICN). Other production services, such as overhead transparencies, electronic publishing, video production, photography, satellite down-linking services, and Internet Web page development are also provided by the division.

Quotable Quote:

Injustice anywhere is a threat to justice everywhere. We are caught in an inescapable network of mutuality, tied in a single garment of destiny. Whatever affects one directly, affects all indirectly.

-Martin Luther King, Jr.

Career Programs

AGRICULTURAL TECHNOLOGY

BUSINESS

HEALTH

REGIONAL HEALTH

PUBLIC SERVICE

INDUSTRIAL TECHNOLOGY

AGRICULTURAL TECHNOLOGY

Larry Eichmeier, Division Head
(515) 422-4225

Program Options for Students Enrolled in Agricultural Technology at NIACC

Associate in Applied Science Degree with

Agricultural Operations & Management

Agricultural Sales & Service

Agricultural Marketing & Finance

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 acceptance of the Agricultural Technology Degree curriculum plan.

Dual Degree Iowa State University Transfer Program:

NIACC's A.A.S. degree programs - Ag Operations & Management, Ag Sales & Service, or Ag Marketing & Finance (modified curriculum articulated to ISU College of Agriculture in):

Ag Studies / Ag Education

Ag Business

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 and student acceptance of a curriculum plan.

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

Ag Transfer

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 three 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 three specific technology areas—operations & management, sales & service, marketing & finance, and be assured that quality student service continues from recruitment through job placement and lifelong learning.

Agricultural Demonstration Center (ADC)

North Iowa Area Community College is the site of the regionally recognized Agricultural Demonstration Center (ADC). The ADC's primary mission is to transfer information assimilated from agricultural demonstration projects conducted with industry, institutional partners, and students. The ADC 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 gotten 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 ADC 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 has facilitated learning opportunities for students interested in animal science by establishing the Swine A.I. Center. The center houses ten boars which will be used to collect, process, and market superior boar semen to area swine producers. Students will be trained to use the latest techniques and equipment available to the industry.

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.

AN EDUCATION PARTNERSHIP

NIACC and Iowa State University's Department of Agricultural Education/Ag Studies and Agricultural Business 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 following the dual degree program should be aware of curriculum modifications outlined in this catalog. 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 or ag business.

Note: Iowa State University College of Agriculture students must certify English proficient by obtaining a C or better in written and verbal communication courses.

Students completing the prescribed courses will fulfill the College of Agriculture intensive requirements in ethics, problem solving, communication, and environment.

Similar partnerships can be arranged with other colleges or Iowa State University departments as determined by individual needs.

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
3. or equivalent Ag Division Exam
4. 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.
3. Develop and complete an Agricultural Career Skills Portfolio.

Agricultural Operations Management

The Agricultural Operations Management curriculum provides for 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. Successful graduates can find job opportunities in the following occupational areas:

- * Crop technology
- * Livestock
- * Grain marketing
- * Crop scouting
- * Pesticide applications
- * Livestock marketing
- * Ag technology
- * Farm operations
- * Custom feeding
- * Custom producing
- * Farm management
- * Diversified ag operations

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 Operations	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.
92:260 Advanced Computer Applications	2 s.h.
90:267 Precision Ag Technology.....	2 s.h.
	7 s.h.

Fourth Term - Fall

89:150 Job-Seeking Skills.....	1 s.h.
89:100 Cooperative Work Experience.....	4 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

89:101 Cooperative Work Experience.....	4 s.h.
90:285 Ag Finance Management	2 s.h.
92:273 Equipment Maintenance and Management	2 s.h.
92:272 Employment Relations & Business Decisions.....	2 s.h.
Approved Ag Electives	4 s.h.
	14 s.h.
TOTAL	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 salesmanship, business management, human relations skills, and information management. The program leads to an associate in applied science degree. Successful graduates can find job opportunities in the following occupational areas:

- * Livestock
- * IPM crop scouting
- * Grain marketing
- * Seed sales
- * Feed sales
- * Equipment sales
- * Fertilizer sales
- * Site specific specialist
- * Crop technology application
- * Grain inspection
- * Co-op operations
- * Commission buying
- * Animal health supply
- * Meat inspector
- * Business management
- * Grain processing
- * Chemical sales

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

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

Fifth Term - Spring

89:101 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	67 s.h.

Agricultural Marketing and Finance

The Agricultural Marketing and Finance curriculum provides for 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 or entering the following occupational areas:

- * Stock market
- * Marketing management
- * Finance management
- * Co-op marketing
- * Farm management
- * Real estate
- * Coop accounting
- * Commodities marketing
- * Ag business mgmt
- * Information management
- * Food sales
- * Feed sales
- * Advertising sales
- * Inventory control
- * Distribution
- * Ag communications
- * Ag office supervision
- * Commodity purchasing

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

15:151 Accounting Principles II	3 s.h.
15:120 Business Law I	3 s.h.
80:134 Microeconomics	3 s.h.
89:150 Job-Seeking Skills	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	67 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 Operations
- 90:282 Soils/Crop Management
- 90:293 Beef Cattle Production
- 92:166 Animal Health
- 92:168 Crop Production Lab
- 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)

30:101 Communication Skills (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 must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use word processors and the computer editing system, Writer's Workbench. (60-0)

30:102 Communication Skills II (4 s.h.) continuation of 30:101 with emphasis on argumentative and persuasive writing and speaking, research methods, and language. Students must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (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)

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)

70:112 Animal Science I (3 s.h.) This course is designed to provide a general overview of the livestock industry. The student will develop an understanding of and will be able to apply the basic principles of animal selection, breeding, genetics, feeding, health, and husbandry practices. Students will have the opportunity to practice husbandry skills at the NIACC Teaching Farm. (45-15)

70:212 Animal Science II (3 s.h.) Advanced principles of animal management, livestock facilities, feed and nutrition fundamentals, handling systems, breeding systems, and current production trends with emphasis in swine and beef production. (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. (15-435)

89:101 D Cooperative Work Experience (4 s.h.) Practical training on the job under the cooperative supervision of the College and work supervisor. (15-435)

89:150 Job-Seeking Skills (1 s.h.) Develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job-entry successful. (10-5)

90:160 Crop Science I (3 s.h.) Crop plant anatomy, physiology, classification, and ID. Principles of plant protection technology in crop production. Pest classification and ID. Integrated pest management basics. Agricultural chemicals and supplies—their properties and adaptation to agriculture. Pesticide application equipment and procedures. (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.) A review of basic arithmetic, with a brief introduction to algebra. Problems use current and realistic agricultural situations which could be encountered by those engaged in production agriculture or employed in agriculturally related occupations and industries. (30-0)

90:169 Swine Production (2 s.h.) Advanced principles of swine production and management. Students will have the opportunity to apply skills learned in the classroom to the swine operation at the NIACC Teaching Farm. Areas of instructional emphasis include reproduction, nutrition, health, and facilities. (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. Essential nutrient requirements. Sources, composition, and function of feedstuffs. Ration formulation and feeding recommendations. (30-0)

90:182 Computer Applications for Agriculture (3 s.h.) Computerized record keeping with spreadsheet applications for cost accounting and business analysis. Review of operating areas of business, profits and losses, efficiency evaluation, decision making, and data base utilization. Use of computer program simulators for ag businesses. (30-30)

90:183 Agricultural Economics (3 s.h.) The role of agriculture in the American economy. Basic economic concepts, the composition and pricing of the national product, government and monetary policy, international trade, and marketing policy will be discussed. A study of this country's ag economics policy. The economic decision making process will be taught built upon the management functions of planning, organizing, controlling, and directing. (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. Use of market information in forecasting commodity prices. Commodity futures and options 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 setups of agricultural goods and services will serve as a basis for this course. (30-0)

90:264 Introduction to Farm Operations (3 s.h.) The course is a unique experience in class work at NIACC. As a class, you will be required to make decisions and carry out the decisions concerning the management of the NIACC Teaching Farm. Emphasis is placed upon sound production management, effective decision making, work responsibility, and development of working relations. Students will complete tasks and projects determined by the group. (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.) course integrating soil and crop fundamentals into profitable crop production systems. (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.) A basic overview of animal health principles and practices. This course should enable students to identify major diseases of livestock and prescribe care and treatment. The course includes a review of animal insects and parasites. The course allows students to develop strategies for disease prevention. (30-0)

92:168 A or B Crop Production & Lab (1 or 2 s.h.) (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 Teaching Farm. Students will participate in the management and operations of the NIACC Teaching Farm. Field trips and guest speakers. (0-30) or (0-60)

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.) 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.

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, parturition, 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, parturition, 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.) Provides students with an opportunity to explore management through a subordinate and a supervisory learning experience. The course emphasizes the role of management in today's agribusiness environment and the role management plays in effective and productive work situations. Principles of managerial control, coordination, communication, motivation, organization, and the role of management supervision and its influence on employee productivity, satisfaction, and organizational effectiveness. (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 117-138 in the catalog or speak with a NIACC advisor.

BUSINESS

Gary Christiansen, Division Head
(515) 422-4226

ACCOUNTING/ COMPUTING

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

INFORMATION TECHNOLOGIES

Information Systems Technology

MARKETING/ MANAGEMENT

Financial Management/Insurance
General Business
Banking Option
Marketing and Sales
Retail Management
Retail Management / Fashion Option
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

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 185-187 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 185-187 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 NIACC Placement Office or the NIACC Business Division.

ENTRANCE REQUIREMENTS
High school graduation or the equivalent.

REQUIRED COURSES:

- 15:107*Keyboarding for Office Technology3 s.h.
- 15:110 Electronic Calculators.....1 s.h.
- 15:118 Accounting Procedures3 s.h.
- 15:119 Accounting Applications5 s.h.
- 15:134 Computer Applications3 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 Job-Seeking Skills1 s.h.

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

ELECTIVE COURSES:

- 15:101 Introduction to Business3 s.h.
- 15:120 Business Law I3 s.h.
- 15:121 Business Law II3 s.h.
- 15:140 Intro to Computers & Info. Systems3 s.h.
- 15:144 Principles of Supervision3 s.h.
- 15:149 Managing Human Resources.....3 s.h.
- 15:175*Electronic Spreadsheets3 s.h.
- 15:211*Word Processing2 s.h.
- 15:217 Professional Office Procedures.....5 s.h.
- 15:221 Marketing.....3 s.h.
- 15:241 Human Relations.....3 s.h.
- 89:100 Cooperative Work Experience2-5 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 Technology3 s.h.
- 15:110 Electronic Calculators.....1 s.h.
- 15:118 Accounting Procedures3 s.h.
- 15:134 Computer Applications3 s.h.
- 15:212 Business Communication.....3 s.h.
- Elective.....2 s.h.
- 15 s.h.**

Second Term

- 15:119 Accounting Applications5 s.h.
- 15:155 Payroll Accounting.....3 s.h.
- 15:160 Computer Accounting.....3 s.h.
- 89:150 Job-Seeking Skills1 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 NIACC Placement Office, 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. 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.

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.)	
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 Intro 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 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 Job-Seeking Skills	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 Intro to Computers & 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 Data Base 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 Studies 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.) 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 wpm (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 documents: memos, letters, envelopes, tables and reports. (30-30)

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

Open Entry/Open Exit

15:110 Electronic Calculators (1 s.h.) [Open Entry/Open Exit] A study of the 10-key, electronic calculator. Applied business problems on the calculator. (0-30)

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. (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. (0-30)

15:114 Computer Literacy (1 s.h.) [Open Entry/Open Exit] Prerequisite: None. 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, and presentation 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. (0-30)

15:118 Accounting Procedures (3 s.h.) An introductory course using a procedural approach applying the princi-

ples 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: 15:109 Introduction to Accounting or 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 electronic spreadsheets, word processing software, and data base management software. (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, data base management software, and presentation software. Students also are exposed to some programming and web page development. (45-0)

15:141 Introduction to Management Information Systems (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, or permission of the instructor. The primary goal of Introduction to MIS 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. (30-30)

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 Data Base Management (4 s.h.)Prerequisite: 15:140 Introduction to Computers and Information Systems. This course introduces students to data base concepts. The course will cover such topics as data base structure and design, data base engines, query languages, report writers, and the association between data bases and management information systems. The course will provide experience with a popular data base. (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 fun-

damentals of spreadsheets, data bases, 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. (15-30)

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, interoffice memorandums, and informal business reports. A secondary emphasis will be placed on oral communication, listening skills, nonverbal communication, and international communication. (45-0)

15:217 Professional Office Procedures (5 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, composing letters, filing, handling telephone services, making travel arrangements, 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. (75-0)

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.)Problems of defining the wants of the worker and of management and bringing these elements together in formal and informal organizations; implementing programs to help them achieve their common purpose to work together productively and cooperatively and with economic, psychological, and social satisfaction. (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 must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use word processors and the computer editing system, Writer's Workbench. (60-0)

30:102 Communication Skills II (4 s.h.) continuation of 30:101 with emphasis on argumentative and persuasive writing and speaking, research methods, and language. Students must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (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 their many material wants and needs. The emphasis is on the determination of national income, output, employment and prices, and the role of the money and banking system in a market economy. (45-0)

80:134 Microeconomics (3 s.h.) prerequisite: 80:133, Macroeconomics. Requires knowledge of basic high school algebra or its equivalent. Analysis of individual consumer and firm behavior, theories of production and consumption, pricing and the market system, perfect and imperfect competition, business and labor regulation, market structure, international trade and finance, and current economic problems. (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 college-transfer students to provide a work 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 90 hours of approved employment to be completed in a term. Appropriateness of learning objectives is an essential factor in the approval process. (15-435)

89:150 Job-Seeking Skills (1 s.h.) develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job entry successful. (15-0)

INFORMATION TECHNOLOGIES

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.

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.

SUGGESTED SCHEDULE

First Year - IST Core Classes

15:140 Intro to Computers and Information Systems.....	3 s.h.
15:156 Networking I	3 s.h.
15:161 Introduction to Operating Systems.....	3 s.h.
15:157 Networking II	4 s.h.
15:162 Networking Operating Systems I.....	4 s.h.
	17 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 37 s.h.

2nd Year Options**

Network Administration

15:158 Networking III	4 s.h.
15:163 Network Operating Systems II.....	4 s.h.
15:164 Groupware Applications I*	4 s.h.
15:159 Networking IV	3 s.h.
15:166 Inter/Intranet Application Management ..	4 s.h.
15:167 Network Security	3 s.h.
	22 s.h.

MIS

15:141 Introduction to MIS	3 s.h.
15:164 Groupware Applications I	4 s.h.
15:165 Groupware Applications II	4 s.h.
15:168 Introduction to Programming	4 s.h.
15:174 Data Base Management.....	4 s.h.
OR	
15:177 Advanced Operating Systems.....	3 s.h.
	18-19 s.h.

Desktop Systems

15:164 Groupware Applications I	4 s.h.
15:163 Network Operating Systems II.....	4 s.h.
15:165 Groupware Applications II	4 s.h.
15:169 Media Experience.....	3 s.h.
15:176 Advanced Desktop Applications.....	3 s.h.
	18 s.h.

Web Systems Support

15:158 Networking III	4 s.h.
15:163 Network Operating Systems II.....	4 s.h.
15:169 Media Experience.....	3 s.h.
15:166 Inter/Intranet Application Management ..	4 s.h.
15:167 Network Security	3 s.h.
	18 s.h.

*15:178 Hardware Service and Repair can be substituted for Groupware I (4 s.h.)

** The program requires 60 credit hours for completion. 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.

Course Descriptions - Information Systems Technology

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, data base management software, and presentation software. Students also are exposed to some programming and web page development. (45-0)

15:141 Introduction to Management Information Systems (3 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems, or permission of the Instructor. The primary goal of Introduction to MIS 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. (30-30)

15:156 Networking I (3 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. (45-0)

15:157 Networking II (4 s.h.) Prerequisite: 15:156, Networking I. 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. (30-30)

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

15:159 Networking IV (3 s.h.) Prerequisite: 15:158, Networking III. A continuation of Networking III. Using primarily hands-on, project-based learning, this course includes advanced network design projects and advanced network management projects. (30-30)

15:161 Introduction to Operating Systems (3 s.h.) This course introduces students to the use of such popular operating systems as Microsoft DOS, Windows 95, Windows 98, Windows NT Workstation, UNIX, and Apple Macintosh. This course also addresses operating system interface and controls; file system management; application management; and network client configuration. (30-15)

15:162 Network Operating Systems I (4 s.h.) Prerequisite: 15:161, Introduction to Operating Systems. 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. (30-30)

15:163 Network Operating Systems II (4 s.h.) Prerequisite: 15:162, Network Operating Systems I. This course is a continuation of Network Operating Systems I that goes into greater detail on such topics as network operating system design and installation; basic, user, peripheral, and application configurations; security issues; workstation and client setup; system management; and WAN/LAN issues. (30-30)

15:164 Groupware Applications I (4 s.h.) This course provides an introduction to such applications as electronic mail, shared calendars, document sharing, bulletin boards, voice and video conferencing, 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 social issues related to groupware applications. (30-30)

15:165 Groupware Applications II (4 s.h.) Prerequisite: 15:164, Groupware Applications I. This course builds on the Groupware Applications I. The course covers such topics as the advantages and disadvantages of a groupware application, installation requirements, initial configuration, interfacing applications, advanced use of applications, and troubleshooting. (30-30)

15:166 Inter/Intranet Application Management (4 s.h.) Prerequisite: 15:162, Network Operating Systems I, and 15:161, Introduction to Operating Systems, or permission of the instructor. This course enables students to design, set up, configure, and manage such Inter/Intranet services as the World Wide Web, electronic mail, domain name service, file transfer protocol; to gain knowledge of such merging applications as streaming audio and video and Internet phone; and to gain insight into the management of these services. (30-30)

15:167 Network Security (3 s.h.) Prerequisite: 15:156, Networking I, and 15:161, Introduction to Operating Systems, 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. (30-15)

15:168 Introduction to Programming (4 s.h.) This course provides students exposure to computer pro-

gram 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. (30-30)

15:169 Media Experience (3 s.h.) Prerequisite: 15:140, Introduction to Computers. This course provides exposure to the development and publication of different forms of communication, including such topics as the World Wide Web, hypertext markup language (HTML), file types, Java, browser helper applications, streaming audio and video, nonlinear audio and video, and creating web pages. (30-15)

15:174 Data Base Management (4 s.h.) Prerequisite: 15:140, Introduction to Computers and Information Systems. This course introduces students to data base concepts. The course will cover such topics as data base structure and design, data base engines, query languages, report writers, and the association between data bases and management information systems. The course will provide experience with a popular data base. (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. (45-30)

15:177 Advanced Operating Systems (4 sh) Prerequisite: 15:140, Introduction to Computers and Information Systems, and 15:161, Introduction to Operating Systems. This course is a continuation of Introduction to Operating Systems. Students will address advanced topics of operating systems such as Microsoft DOS, Windows '95, Windows '98, Windows NT Workstation, UNIX, and Apple Macintosh. Topics will include installation, troubleshooting, registry, batch files, configuration, network and Internet features, and utilities. (45-30)

15:178 Hardware Service and Support (4 sh) Prerequisite: 15:140, Introduction to Computers and Information Systems, 15:161, Introduction to Operating Systems, 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)

MARKETING/ MANAGEMENT

Financial Management/Insurance

General Business Banking Option

Marketing and Sales

Retail Management

Retail Management/Fashion Option

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.

Entrepreneurism 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 NIACC Business Division, in partnership with the center, is currently developing credit courses in entrepreneurship and small business management.

The program will be designed to provide 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.

Integration into NIACC's Credit Program:

The entrepreneurship option would likely be 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 will offer three courses, with primary emphasis within the Business Division. These courses will be: (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.) Prerequisite: 15:101, Introduction to Business, and 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.) Course will combine group lecture/discussions with an actual case project with a local entrepreneurial firm. Students will have an opportunity to apply business skills learned throughout their NIACC program in local entrepreneurial firms. (45-0)

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 (see pages 185-187 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.

SUGGESTED SCHEDULE

(Two-Year Program)

First Term

15:101 Introduction to Business	3 s.h.
15:140 Intro 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

15:120 Business Law I	3 s.h.
15:109 Intro to Accounting	3 s.h.
OR 15:118 Acctg. Procedures (3 s.h.)	
OR 15:150 Principles of Acctg. 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 Princ. of Accounting II	3 s.h.
80:134 Microeconomics	3 s.h.
89:100 Cooperative Work Experience.....	3 s.h.
Elective.....	3 s.h.
	15 s.h.
Total	62 s.h.

Elective Courses

15:102 Keyboarding	3 s.h.
15:110 Electronic Calculators.....	1 s.h.
15:142 Princ. 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 Princ. of Selling	3 s.h.
15:241 Human Relations.....	3 s.h.
89:150 Job-Seeking Skills	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 with industrial and retail firms. For specific placement information, contact the NIACC Placement Office 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 (see pages 185-187 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 185-187). This will necessitate a slightly different curriculum.

ENTRANCE REQUIREMENTS

High school graduation or the equivalent.

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 Intro 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.

Second Year

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 Principles of Acctg. I (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	6 s.h.

¹ 40:121 or higher level math course

² Recommended electives

Elective Courses

15:110	Electronic Calculators.....	1 s.h.
15:130	Personal Income Tax	1 s.h.
15:144	Principles of Supervision.....	3 s.h.
15:146	Contemporary 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	Job-Seeking Skills	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 NIACC Placement Office 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 (see pages 185-187 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 185-187). This will necessitate a slightly different curriculum.

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

- * Bank cashier
- * Cash-cage supervisor
- * Check-processing clerk
- * Credit analyst
- * Encoder
- * Letter-of-credit clerk
- * Loan-application clerk
- * Mortgage clerk
- * New-accounts clerk
- * Teller

ENTRANCE REQUIREMENTS

High school graduation or the equivalent.

SUGGESTED SCHEDULE

First Year

- 15:109 Intro to Accounting3 s.h.
OR 15:118 Acctg. Procedures (3 s.h.)
OR 15:150 Principles of Acctg. I (3 s.h.)
- 15:151 Accounting Principles II3 s.h.
- 15:170 Principles of Banking Operation3 s.h.
- 30:101 Communication Skills I3-4 s.h.
- 30:102 Communication Skills II3-4 s.h.
- 80:101 General Psychology3 s.h.
- 80:133 Macroeconomics3 s.h.
- 85:101 Public Speaking¹2 s.h.
- Mathematics²3 s.h.
- Electives4-5 s.h.

Second Year

- 15:120 Business Law I3 s.h.
- 15:121 Business Law II3 s.h.
- 15:140 Intro to Computers and Information Systems3 s.h.
- 15:241 Human Relations3 s.h.
- 40:125 Quantitative Methods3 s.h.
- Elective in Humanities or Social Science 3 s.h.
- Electives9 s.h.

Elective Courses

- 15:101 Introduction to Business3 s.h.
- 15:102 Keyboarding3 s.h.
- 15:110 Electronic Calculators1 s.h.
- 15:142 Principles of Management3 s.h.
- 15:171 Introduction to Entrepreneurship3 s.h.
- 15:172 Managing the Entrepreneurial Venture ..3 s.h.
- 15:173 Seminar in Entrepreneurship3 s.h.
- 30:120 Reading Improvement3 s.h.
- 80:110 Sociology3 s.h.
- 80:111 Social Problems3 s.h.
- 80:120 Intro to American Government3 s.h.
- 80:121 American, State and Local Government 3 s.h.
- 80:134 Microeconomics3 s.h.
- 89:150 Job-Seeking Skills1 s.h.
- 90:105 Business Math2 s.h.

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

² 40:121 or higher level math course

Marketing and Sales

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

SUGGESTED SCHEDULE

Required Courses

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 Principles of Acctg. 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.

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 Intro to Computers and Information Systems.....	3 s.h.
15:144 Principles of Supervision	3 s.h.
15:146 Contemporary 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 to enter the field of retailing with the goal of moving into management-level positions. The two areas of personal development and retail business knowledge are stressed. For specific placement information, contact the NIACC Placement Office or the NIACC Business Division.

The curriculum involves classroom course work and practical retail work experience. The student involved in the latter activity is paid wages commensurate with those of other beginning employees of the business.

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.

ENTRANCE REQUIREMENTS

High school graduation or the equivalent is necessary for entrance into the program. A completed application form and personal interview with a member of the College counseling staff or coordinator of the Retail Management Program are also required.

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

- * Department manager
- * Assistant store manager
- * Buyer trainee
- * Sales trainee
- * Customer service rep.
- * Merchandising assistant

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.
	Total	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.
90:126	Retail Field Experience	5 s.h.
	Elective	3 s.h.
	Total	17 s.h.

Semester Three

15:241	Human Relations	3 s.h.
89:150	Job-Seeking Skills	1 s.h.
15:109	Introduction to Accounting	3 s.h.
90:233	Retail Field Experience	5 s.h.
	Elective	3 s.h.
	Total	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.
	Total	12 s.h.

Total Hours 60 s.h.

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

15:144	Principles of Supervision	3 s.h.
15:146	Contemporary Supervision	3 s.h.
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.
15:190	General Insurance	3 s.h.
15:222	Principles of Advertising	3 s.h.
80:133	Macroeconomics	3 s.h.
80:134	Microeconomics	3 s.h.

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

Retail Management/ Fashion Option

Retail Management is a career program designed to prepare graduates to enter the field of retailing with the goal of moving into management-level positions. The two areas of personal development and retail business knowledge are stressed. For specific placement information, contact the NIACC Placement Office or the NIACC Business Division.

The curriculum involves classroom course work and practical retail work experience. The student involved in the latter activity is paid wages commensurate with those of other beginning employees of the business.

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.

ENTRANCE REQUIREMENTS

High school graduation or the equivalent is necessary for entrance into the program. A completed application form and personal interview with a member of the College counseling staff or coordinator of the Retail Management Program are also required.

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

- * Department manager
- * Assistant store manager
- * Buyer trainee
- * Sales trainee
- * Customer service rep.
- * Merchandising assistant

Students in the fashion option follow the same curriculum as a Retail Management student with two exceptions.

1. Students take two fashion courses for six hours of their elective courses.
2. Students are placed in a field experience directly related to fashion.

Fashion Option students will also gain practical experience in their chosen field from their on-the-job training and their individual instruction projects. Specialization of study in this option is designed to encourage the student to develop a management-minded approach to fashion store merchandising.

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.
	Total	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.
90:241	Introduction to Fashion.....	3 s.h.
90:126	Retail Field Experience	5 s.h.
	Total	17 s.h.

Semester Three

15:241	Human Relations.....	3 s.h.
89:150	Job-Seeking Skills	1 s.h.
15:109	Introduction to Accounting.....	3 s.h.
90:242	Fashion Management.....	3 s.h.
90:233	Retail Field Experience	5 s.h.
	Total	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.
	Total	12 s.h.

Total Hours 60 s.h.

NOTE: It should be noted that a student in the Retail Management/Fashion Option Program will be required to **have a job in a legitimate fashion environment to meet the requirement for Retail Field Experience.**

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

15:144	Principles of Supervision	3 s.h.
15:146	Contemporary Supervision.....	3 s.h.
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.
15:190	General Insurance.....	3 s.h.
15:222	Principles of Advertising	3 s.h.
80:133	Macroeconomics	3 s.h.
80:134	Microeconomics	3 s.h.

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

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

SUGGESTED SCHEDULE

15:120 Business Law I	3 s.h.
15:140 Intro 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.
 15:109 Intro to Accounting	3 s.h.
OR 15:118 Acctg. Procedures (3 s.h.)	
OR 15:150 Principles of Acctg. I (3 s.h.)	
 15:241 Human Relations.....	3 s.h.
30:101 Communication Skills I.....	4 s.h.
80:133 Macroeconomics	3 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.

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

SUGGESTED SCHEDULE

15:121 Business Law II	3 s.h.
15:146 Contemporary Supervision.....	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.

Elective Courses

15:175 Electronic Spreadsheets	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.
89:100 Cooperative Work Experience, as arranged Social Science or Humanities.....	3 s.h.
General Electives	5 s.h.

COURSE DESCRIPTIONS

Financial Management/Insurance General Business General Business/Banking Option Marketing and Sales Retail Management Retail Management/Fashion Option Supervision and Management Diploma and Career Option

15:101 Introduction to Business (3 s.h.) 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)

15:102 Keyboarding (3 s.h.) This course provides for the introduction to the basic techniques of keyboarding including mastery of the alphabetic and numeric keyboard as well as the mini-keypad by touch on a micro-computer. Development of speed and accuracy is emphasized as well as the word processing cycle. A variety of personal documents are introduced. This course is designed for the nonoffice technology major. (30-30)

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

15:110 Electronic Calculators (1 s.h.) Open Entry/Open Exit] A study of the 10-key, electronic calculator. Applied business problems on the calculator. (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)

15:120 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)

15:130 Personal Income Tax (1 s.h.) For anyone interested in learning how to prepare an individual tax return. Standard versus itemized deductions; employee business expense and moving expense; multiple support agreements; and gains or losses on stocks, mutual funds and homes. A general education course helpful to all students regardless of their major interest. (15-0)

15:134 Computer Applications (3 s.h.) Emphasis on business applications of computer software. Students do business problems using electronic spreadsheets, word processing software, and data base management software. (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, data base 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.) Prerequisite: 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)

15:146 Contemporary Supervision (3 s.h.) Prerequisite/Corequisite: 15:144, Principles of Supervision. An understanding of management functions involved with being a supervisor. Enhancement of the understanding of supervisory roles. (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.) Prerequisite: 15:101, Introduction to Business, and 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.) Course will combine group lecture/discussions with an actual case project with a local entrepreneurial firm. Students will have an opportunity to apply business skills learned throughout their NIACC program in local entrepreneurial firms. Course expected to be offered beginning spring 1999. (45-0)

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, data bases, 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)

15:221 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)

15:241 Human Relations (3 s.h.) Problems of defining the wants of the worker and of management and bringing these elements together in formal and informal organizations; implementing programs to help them achieve their common purpose to work together productively and cooperatively and with economic, psychological, and social satisfaction. (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 must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use word processors and the computer editing system, Writer's Workbench. (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 must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

30:102 Communication Skills II (4 s.h.) continuation of 30:101 with emphasis on argumentative and persuasive writing and speaking, research methods, and language. Students must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (60-0)

30:102C Communication Skills II (3 s.h.) continuation of 30:101 with emphasis on argumentative and persuasive writing, research methods, and language. Students must meet minimum competency requirements in writing to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

30:120 Reading Improvement (3 s.h.) instruction and practice in the basic reading skills that make college study most effective. Open to all students with diverse reading abilities and with comprehension skills at different stages of development. Instruction and practice in improving speed and comprehension, in budgeting time for reading, in concentrating, in building vocabulary, in adjusting the rate and kind of reading to the purpose and the content, and in previewing content to be studied. (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: 40:120, Intermediate Algebra, or equivalent. 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)

80:101 General Psychology (3 s.h.) prerequisite: New students with entering ACT or COMPASS reading scores below college level will be required to enroll in College Reading Skills (30:120). Introduction to the scientific study of behavior: a brief history of psychology as a science; influences of heredity and environment; motivation, frustration and conflict; the learning process, intelligence, perception, and mental health. (45-0)

80:110 Introduction to Sociology (3 s.h.) introductory course in sociology. A study of basic processes of group behavior identifying the main forces that hold groups together or weaken them. The study of society, family and group life, social organizations, culture, population structure and change, social change, and community structure, both urban and rural. (45-0)

80:111 Social Problems (3 s.h.) survey of some of the important social problems in our society; their causes, complexity, and possible solutions; juvenile delinquency, crime, minority groups, the family, etc. (45-0)

80:120 Introduction to American Government (3 s.h.) 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 their many material wants and needs. The emphasis is on the determination of national income, output, employment and prices, and the role of the money and banking system in a market economy. (45-0)

80:134 Microeconomics (3 s.h.) prerequisite: 80:133, Macroeconomics. Requires knowledge of basic high school algebra or its equivalent. Analysis of individual consumer and firm behavior, theories of production and consumption, pricing and the market system, perfect and imperfect competition, business and labor regulation, market structure, international trade and finance, current economic problems. (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 college-transfer students to provide a work 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 90 hours of approved employment to be completed in a term. Appropriateness of learning objectives is an essential factor in the approval process. (15-435)

89:150 Job-Seeking Skills (1 s.h.) develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job entry successful. (15-0)

90:105 Business Math (2 s.h.) basic mathematical skills necessary in an accounting situation. Includes basic

mathematical principles, percentages, interest, and mechanics of handling daily monetary activities. (30-0)

90:123 Retail Field Experience (5 s.h.)The on-the-job training component of the Retail Management Program and the Fashion Option 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, or equivalent work experience. The on-the-job training component of the Retail Management Program and the Fashion Option Program. (15-225)

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

90:241 Introduction to Fashion Merchandising (3 s.h.)
A field study in the various components of the fashion industry. Students will experience guided visits to a variety of business establishments in order to gain an understanding of the promotional strategies of fashion marketing. Career paths in retailing, wholesaling, manufacturing, and business ownership will be explored. This course is a component of the prescribed curriculum for the students enrolled in the career program of Retail Management/Fashion Option. (45-0)

90:242 Fashion Management Techniques (3 s.h.)Principles of fashion merchandise presentation and promotion at wholesale and retail levels as related to image, sales, and aesthetics. Overall themes include the link between sales promotion and merchandising, the vital role of marketing information, and what constitutes effective execution. (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)

Quotable Quote:

The true test of a first-rate mind is the ability to hold two contradictory ideas at the same time.
-F. Scott Fitzgerald (1896-1940)

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**

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 185-187 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 185-187).

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.

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

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

15:134 Computer Applications	3 s.h.
OR 15:140 Intro to Computers and	
Information Systems (3 s.h.)	
30:102 Communication Skills II.....	4 s.h.
Business Electives	9 s.h.
	16 s.h.

Second Year

First Term

15:211 Word Processing	2 s.h.
15:212 Business Communication.....	3 s.h.
15:175* Electronic Spreadsheets	3 s.h.
Humanities Elective.....	3 s.h.
Social Science Elective	3 s.h.
	14 s.h.

*Prerequisites: 15:134 or 15:140

Second Term

15:217* Professional Office Procedures.....	5 s.h.
89:150 Job-Seeking Skills.....	1 s.h.
Natural Science Elective	3 s.h.
2 Electives	7 s.h.
	16 s.h.

*Prerequisites: 15:211 and 15:212

Recommended electives

15:101 Intro to Business.....	3 s.h.
15:221 Marketing.....	3 s.h.
15:142 Principles of Management.....	3 s.h.
15:241 Human Relations.....	3 s.h.
15:280 On-the-Job Training	3 s.h.
15:281 On-the-Job Training	3 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

SUGGESTED SCHEDULE

First Year

First Term

- 15:107* Keyboarding for Office Technology3 s.h.
- 15:109 Intro to Accounting3 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 & Function4 s.h.

15 s.h.

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

Second Term

- 15:134 Computer Applications3 s.h.
OR 15:140 Introduction to Computers and Information Systems (3 s.h.)
- 30:102 Communication Skills II4 s.h.
- Electives8 s.h.

15 s.h.

Second Year

First Term

- 15:251 Medical Terminology I3 s.h.
- 15:211 Word Processing2 s.h.
- 15:212 Business Communication3 s.h.
- 15:175* Electronic Spreadsheets3 s.h.
- 70:101 Biological Principles3 s.h.
- 70:102L Biological Principles Lab1 s.h.

15 s.h.

*Prerequisite: 15:134 or 15:140

Second Term

- 15:250* Basic Medical Insurance & Coding.....2 s.h.
- 15:252 Medical Terminology II3 s.h.
- 15:259**Medical Office Procedures3 s.h.
- 89:150 Job-Seeking Skills1 s.h.
- Electives6 s.h.

15 s.h.

*Prerequisite: 94:104 or permission from instructor and 15:251

**Prerequisites: 15:211 and 15:212

Recommended Electives

- 15:241 Human Relations3 s.h.
- 15:280 On-the-Job Training3 s.h.
- 15:281 On-the-Job Training3 s.h.
- 15:142 Principles of Management.....3 s.h.
- 70:250 Anatomy and Physiology I.....4 s.h.
- 90:141 Clinical Procedures I and Lab4 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 medical secretary degree with a transcription specialist certificate.

ENTRANCE REQUIREMENTS

High School graduation or the equivalent.

First Year

First Term

- 15:107* Keyboarding for Office Technology3 s.h.
- 15:251 Medical Terminology I3 s.h.
- 30:101 Communication Skills I4 s.h.
- 70:101 Biological Principles3 s.h.
- 70:102L Biological Principles Lab1 s.h.

14 s.h.

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

Second Term

- 15:109 Intro to Accounting3 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 Applications3 s.h.
OR 15:140 Introduction to Computers
and Information Systems (3 s.h.)
- 15:252 Medical Terminology II3 s.h.
- 30:102 Communication Skills II4 s.h.
- 89:150 Job-Seeking Skills1 s.h.
- 90:140 Lab Tests.....1 s.h.

16 s.h.

Second Year

First Term

- 15:175* Electronic Spreadsheets3 s.h.
- 15:211 Word Processing2 s.h.
- 15:212 Business Communication3 s.h.
- 70:250 Anatomy and Physiology I4 s.h.
- 15:255**Medical Transcription I 3 s.h.

15 s.h.

*Prerequisite: 15:134 or 15:140

**Prerequisites: 15:251 and 15:107

Second Term

- 15:250* Basic Medical Insurance & Coding2 s.h.
- 15:256** Medical Transcription II3 s.h.
- 15:259***Medical Office Procedures3 s.h.
- 70:251 Anatomy and Physiology II4 s.h.
- Elective (see below Summer Term)3 s.h.

15 s.h.

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

**Prerequisites: 15:255, 15:251, and 15:252; suggested corequisite 70:250

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

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.

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

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 wpm 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.)
30:102 Communication Skills II	4 s.h.
Social Science/Humanities Electives	6 s.h.
Business Elective	3 s.h.
	16 s.h.

Second Year

First Term

15:211 Word Processing	2 s.h.
15:212 Business Communication.....	3 s.h.
15:175* Electronic Spreadsheets	3 s.h.
15:120 Business Law I	3 s.h.
Natural Science Elective	3 s.h.
	14 s.h.

*Prerequisite: 15:134 or 15:140

Second Term

15:122* Legal Office Procedures.....	5 s.h.
89:150 Job-Seeking Skills	1 s.h.
Electives	10 s.h.
	16 s.h.

*Prerequisites: 15:211 and 15:212

Recommended Electives

15:101 Introduction to Business	3 s.h.
15:241 Human Relations.....	3 s.h.
15:280 On-the-Job Training	3 s.h.
15:281 On-the-Job Training	3 s.h.
15:142 Principles of Management.....	3 s.h.
15:121 Business Law II	3 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:

Great minds discuss ideas,
average minds discuss events,
small minds discuss people.

-Admiral Hyman Rickover

COURSE DESCRIPTIONS - (Degree Programs)

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

15:101 Introduction to Business (3 s.h.) 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 wpm (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 documents: memos, letters, envelopes, tables and reports. (30-30)

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

15:110 Electronic Calculators (1 s.h.) Open Entry/Open Exit] A study of the ten-key, electronic calculator. Applied business problems on the calculator. (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)

15:120 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 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, composing letters, 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. (75-0)

15:134 Computer Applications (3 s.h.) Emphasis on business applications of computer software. Students do business problems using electronic spreadsheets, word processing software, and data base management software. (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, data base 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.) 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, data bases, 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. (15-30)

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

15:217 Professional Office Procedures (5 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, composing letters, 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. (75-0)

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.) Problems of defining the wants of the worker and of management and bringing these elements together in formal and informal organizations; implementing programs to help them achieve their common purpose to work together productively and cooperatively and with economic, psychological, and social satisfaction. (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.) 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)

15:255 Medical Transcription I (3 s.h.) Prerequisite: 15:251, Medical Terminology; 15:107, Keyboarding for Office Technology; recommended (not required) Corequisite: 70:250, Anatomy and Physiology. This course is designed to introduce students to transcription in the medical field. The students will progress from basic through intermediate levels of medical transcription projects. The students will also be introduced to issues of confidentiality and the use of medical reference books. (15-60)

15:256 Medical Transcription II (3 s.h.) Prerequisite: 15:255, Medical Transcription; 15:251 and 15:252, Medical Terminology I and II; suggested corequisite 70:250, Anatomy and Physiology I. This course is designed to introduce students to advanced medical transcription including reports dictated with foreign accents and other real-life situations. The students will apply problem-solving techniques to accurately transcribe 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, 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. (60-30)

15:280 On-the-Job Training (3 s.h.) Practical training on the job under the cooperative supervision of the College and qualified supervisors. (15-210)

15:281 On-the-Job Training (3 s.h.) A continuation of 15:280. (15-210)

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. Student must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use word processors and the computer editing system, Writer's Workbench. (60-0)

30:102 Communication Skills II (4 s.h.) Continuation of 30:101 with emphasis on argumentative and persuasive writing and speaking, research methods, and language. Students must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (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)

70:250 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, and nervous systems. Cat dissections continued, plus kidney, brain, and eye dissections. (45-30)

80:120 Introduction to American Government (3 s.h.) 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 Job-Seeking Skills (1 s.h.) Develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job entry successful. (15-0)

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.) 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

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 Intro 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.
15:217**Professional Office Procedures.....	5 s.h.
89:150 Job-Seeking Skills	1 s.h.
Electives	6 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.
15:241 Human Relations.....	3 s.h.
15:280 On-the-Job Training	3 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

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 Intro 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 Job-Seeking Skills	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.
15:175 Electronic Spreadsheets	3 s.h.
15:241 Human Relations.....	3 s.h.
15:280 On-the-Job Training	3 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 * Appointment clerk
- * Medical records manager * Receptionist
- * Medical information processing operator

REQUIRED COURSES

First Term

15:107*Keybrdng for Office Technology.....	3 s.h.
15:251 Medical Terminology I.....	3 s.h.
15:211 Word Processing.....	2 s.h.
15:212 Business Communication	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 Job-Seeking Skills.....	1 s.h.
Electives	2 s.h.
	15 s.h.

*Prerequisites: 15:211 and 15:212

**Prerequisites: 94:104 and 15:251

Recommended Electives

15:101 Introduction to Business.....	3 s.h.
15:134 Computer Applications	3 s.h.
15:280 On-the-Job Training	3 s.h.

COURSE DESCRIPTIONS - Diploma Programs

General Secretary Legal Secretary Medical Secretary

15:101 Introduction to Business (3 s.h.) 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 documents: memos, letters, envelopes, tables and reports. (30-30)

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

15:110 Electronic Calculators (1 s.h.) [Open Entry/Open Exit] A study of the ten-key, electronic calculator. Applied business problems on the calculator. (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)

15:120 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)

15:122 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, composing letters, 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. (75-0)

15:134 Computer Applications (3 s.h.)Emphasis on business applications of computer software. Students do business problems using electronic spreadsheets, word processing software, and data base management software. (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, data base 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.)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, data bases, 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. (15-30)

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

15:217 Professional Office Procedures (5 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, composing letters, filing, handling telephone services, discussing professionalism, applying grammar rules, and taking care of general office administration. Stu-

dents are expected to spend time outside of class working in the computer lab. (75-0)

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.)Problems of defining the wants of the worker and of management and bringing these elements together in formal and informal organizations; implementing programs to help them achieve their common purpose to work together productively and cooperatively and with economic, psychological, and social satisfaction. (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.)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)

15:259 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, 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. (60-30)

15:280 On-the-Job Training (3 s.h.)Practical training on the job under the cooperative supervision of the College and qualified supervisors. (15-210)

15:281 On-the-Job Training (3 s.h.) continuation of 15:280. (15-210)

89:150 Job-Seeking Skills (1 s.h.) develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job entry successful. (15-0)

94:104 Body Structure and Function (4 s.h.) 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 117-138 in the catalog or speak with a NIACC advisor.

HEALTH

Donna Orton, Division Head
(515) 422-4216

Medical Assistant

Medical Laboratory Technician

Nursing - Associate Degree

Nursing - Practical

Optometric Assistant

Physical Therapist Assistant

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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 and are staffed by qualified instructors in their field.

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 and Clinical Procedures I and II.) In addition, students must meet all course requirements prior to beginning their 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.

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

A night class sequencing is also available for this program. If the program is being extended beyond a one-year period, it is required that courses 90:141 and 90:142 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.

SUGGESTED SCHEDULE**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.
90:142 Clinical Procedures II	4 s.h.
89:150 Job-Seeking Skills.....	1 s.h.
	17 s.h.

Summer Term (only Eight Weeks)

90:208 Medical Assistant Externship	6 s.h.
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Course Descriptions - Medical Assistant

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

15:110 Electronic Calculators (1 s.h.) [Open Entry/Open Exit] A study of the 10-key, electronic calculator. Applied business problems on the calculator. (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. (30-0)

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, interoffice memorandums, and informal business reports. A secondary emphasis will be placed on oral communication, listening skills, nonverbal communication, and international communication. (45-0)

15:241 Human Relations (3 s.h.) Problems of defining the wants of the worker and of management and bringing these elements together in formal and informal organizations; implementing programs to help them achieve their common purpose to work together productively and cooperatively and with economic, psychological, and social satisfaction. (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.) 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, 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. (60-30)

89:150 Job-Seeking Skills (1 s.h.) Develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job entry successful. (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. (0-270)

94:104 Body Structure and Function (4 s.h.) 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. Upon completion of the prescribed curriculum, the student is awarded an associate of 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 may take a national certification examination.

Medical Laboratory Technicians may continue their education and become medical technologists.

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:

1. Completion of high school diploma or equivalency program.
2. Graduated in the upper half of the high school class.
3. Graduated from high school with a minimum of 2.5 GPA.
4. Completed ACT testing with a composite score of 20 or higher (recommended, but not required). If the ACT was taken while in high school, the results are probably recorded on the high school transcript. If the ACT was taken after high school or the score is not recorded on the high school transcript, the 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 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.

PrerequisitesThe following courses must be taken with a grade of C or better.

Mathematics:

Two semesters of high school/college preparatory math in high school (e.g., Algebra I) OR one semester of college equivalent math (e.g., 40:060, Beginning 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; 70:102L, Biology Lab)

It is recommended that 4-6 semesters of high school social studies be taken. An application, high school transcript, GED scores (if applicable), all college transcripts, and results of the ACT or COMPASS test must be in the applicant's folder before the admissions committee takes action on acceptance into the program. Upon acceptance, a physical examination providing evidence of current immunization and sound physical and mental health is required.

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 course 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.) 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 must meet competency requirements in writing to receive a C grade or higher. Students may use word processors and a computer-aided editing system, Writer's Workbench. (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.) Prerequisite: New students with entering ACT or COMPASS reading scores below college level will be required to coenroll in College Reading Skills (30:120). Introduction to the scientific study of behavior: a brief history of psychology as a science; influences of heredity and environment; motivation, frustration and conflict; the learning process, intelligence, perception, and mental health. (45-0)

80:110 Sociology (3 s.h.) An introductory course in sociology. A study of basic processes of group behavior identifying the main forces that hold groups together or weaken them. The study of society, family and group life, social organizations, culture, population, social change, and community structure, both urban and rural. (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.

Upon completion of the prescribed curriculum, the student is awarded an associate in applied science degree and is then prepared to work, with some degree of independence, in a beginning staff nurse position. Graduates are 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.

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. Graduated in the upper half of the high school class.
3. Graduated from high school with a minimum of a 2.5 GPA.
4. 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.

Applicants who do not meet 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. 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:

Four semesters of high school/college preparatory 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)

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 available), 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 freshman year must be taken in the sequence and time lines indicated. However, the required related courses (noted with an * in the curriculum) may be taken prior to enrolling or during the time the student is in the nursing 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 and adult abuse checks 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 related required courses. An overall 2.0 GPA in the prescribed curriculum is required for graduation from this program.

Students who withdraw from the program must make formal application for reentry and upon acceptance will be considered on a space-available basis. Preference for entry/reentry will be given to those students who have been academically successful. A student may reenter the nursing curriculum one time. Options will be discussed on an individual basis for students unsuccessful at any level of the program.

CURRICULUM

First Term (Summer - 6 weeks)

30:101 Communication Skills I* (30:101C).....	3 s.h.
70:109 Microbiology*	4 s.h.
90:106 Introduction to Nursing	1 s.h.
	8 s.h.

Second Term (Fall)

70:250 Anatomy and Physiology I	4 s.h.
80:101 General Psychology*	3 s.h.
90:108 Nursing I	7 s.h.
80:230 Human Growth and Development*	3 s.h.
	17 s.h.

Third Term (Spring)

70:200 Nutrition*	3 s.h.
70:251 Anatomy and Physiology II	4 s.h.
90:111 Nursing II	10 s.h.
	17 s.h.

* Anatomy and Physiology I and II must be completed within five years of beginning the nursing component of the curriculum.

Fourth Term (Fall)

80:110 Sociology*	3 s.h.
90:210 Nursing III	12 s.h.
	15 s.h.

Fifth Term (Spring)

30:102 Communication 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 nursing program. Once in the nursing program, courses must be taken in the identified sequence.

NOTE: Prior to Nursing I, 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 - Associate Degree 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 must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

30:102C Communication Skills II (3 s.h.) continuation of 30:101C with emphasis on argumentative and persuasive writing, research methods, and language. Students must meet minimum competency requirements in writing to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

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)

70:200 Nutrition (3 s.h.) Prerequisite: high school or college chemistry. 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. This course may also be taken during the summer between the freshman and sophomore year but must be completed prior to Nursing III. (45-0)

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, and nervous systems. Cat dissections continued, plus kidney, brain, and eye dissections. (45-30)

80:101 General Psychology (3 s.h.) Prerequisite: New students with entering ACT or COMPASS reading scores below college level will be required to enroll in College Reading Skills (30:120). Introduction to the scientific study of behavior: a brief history of psychology as a science; influences of heredity and environment; motivation, frustration and conflict; the learning process, intelligence, perception, and mental health. (45-0)

80:110 Sociology (3 s.h.) An introductory course in sociology. A study of basic processes of group behavior identifying the main forces that hold groups together or weaken them. The study of society, family and group life, social organizations, culture, population, social change, and community structure, both urban and rural. (45-0)

80:230 Human Growth and Development (3 s.h.) 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)

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, the therapeutic nurse-patient relationship and effective communication techniques. An introduction to caring concepts is also included. (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. (60-75)

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. 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 nontraditional 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.

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 reentry into the program for the second semester of the freshman year on a space-available basis.

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

Mathematics:

Four semesters of high school/college preparatory 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

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. Criminal and adult abuse checks may also be required by individual agencies and the cost will be the responsibility of the student.

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 2.0 GPA in the prescribed curriculum is required for graduation from this 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.
80:230 Human Growth and Development.....	3 s.h.
80:101 General Psychology	3 s.h.

*** Anatomy and Physiology I and II must be completed within five years of beginning Nursing IIA (90:113)**

CURRICULUM

First Term (Summer - one week, end of August)

90:113 Nursing IIA.....	1 s.h.
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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

30:102C Communication Skills II (3 s.h.) continuation of 30:101 with emphasis on argumentative and persuasive writing, research methods, and language. Students must meet minimum competency requirements in writing to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

80:110 Sociology (3 s.h.) An introductory course in sociology. A study of basic processes of group behavior identifying the main forces that hold groups together or weaken them. The study of society, family, group life, social organizations, culture, population, social change, and community structure, both urban and rural. (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. (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 men and women 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.

Students must attain a C grade in all nursing courses and at least a C- in related required courses. However, an overall 2.0 GPA in the prescribed curriculum 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. 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 completion of the prescribed curriculum, a diploma is awarded. 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. Have satisfactory COMPASS assessment test results in reading, writing, and math (these are administered by NIACC).

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.

It is recommended that biology, general math (Basic Math, Mathematics for Decision Making, Algebra), and six semesters of English be taken. 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 dis-

tance 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 reentry 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. Preference for entry/reentry will be given to those students who have been academically successful. A student may reenter the nursing curriculum one time.

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.

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 in expository methods of development and personal experience. Students must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

80:101 General Psychology (3 s.h.) Prerequisite: New students with entering ACT or COMPASS reading scores below college level will be required to enroll in College Reading Skills (30:120). Introduction to the scientific study of behavior: a brief history of psychology as a science; influences of heredity and environment; motivation, frustration and conflict; the learning process, intelligence, perception, and mental health. (45-0)

80:230 Human Growth and Development (3 s.h.) 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)

94:101 Practical Nursing Arts I (4 s.h.) Prerequisite: 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, principles of planning nursing care, 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. A continuation of 94:101. Continued development of basic skills, creating and maintaining the physical environment, physical and psychological supportive measures, basic scientific principles of therapeutic nursing techniques and clinical recording, introduction to pharmacology and the administration of medications, normal nutrition, and introduction to disease. Supervised practice in a college laboratory and selected community agencies. (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. 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 in a birth center and a pediatric unit is provided. (60-45)

94:104A Body Structure and Function (4 s.h.) 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. 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, and nursing homes. (105-316)

Optometric Assistant

Optometric Assistant is an 11-month program designed to prepare men and women for an assisting position in optometric or ophthalmic offices.

Under the supervision of the optometrist or ophthalmologist, the graduate will: assist with a visual examination, assist patients in selecting frames, instruct patients in the care of glasses and contact lenses, work with contact lenses, assist in detection of eye pathology and visual problems, schedule and receive patients, maintain records, and handle telephone calls, appointments, and correspondence.

To satisfactorily complete the program and be awarded a diploma, the student must maintain a 2.00 (C) in Introduction to Accounting (15:109) and Electronic Calculators (15:110), all optometric courses (those with a 94:000 number) including the eight-week summer practicum, as well as an overall program GPA of 2.00.

*Students must complete all course requirements and have a C average prior to beginning 94:152, Optometric Assisting III, clinical practicum.

ENTRANCE REQUIREMENTS

The applicant must:

1. have a high school diploma or its equivalent.
2. have a high school grade point average of 2.00 or higher.
3. have satisfactory COMPASS test results in reading, writing, and math (these are administered by NIACC).

Basic typing skills (30-45 wpm) are recommended. Applicants should have two semesters of physical science, two semesters of basic math, and six semesters of English, all with a C grade or better. All high school and college transcripts must be submitted.

Applicants who do not meet requirements or those with a poor academic history may meet entrance requirements by successfully completing remedial work or completing approved college courses the summer prior to admission. This should be discussed with the health professions counselor.

SUGGESTED SCHEDULE

First Term

15:241 Human Relations.....	3 s.h.
15:212 Business Communications.....	3 s.h.
94:150 Optometric Assisting I.....	3 s.h.
94:153 Optometric Assisting I Lab.....	4 s.h.
94:160 Optometric Office Practice I.....	5 s.h.
	18 s.h.

Second Term

15:109 Introduction to Accounting.....	3 s.h.
15:110 Electronic Calculators.....	1 s.h.
94:151 Optometric Assisting II*.....	4 s.h.
94:154 Optometric Assisting II Lab.....	3 s.h.
94:161 Optometric Office Practice II.....	5 s.h.
	16 s.h.

Third Term (Summer - 8 weeks)

94:152 Optometric Assisting III.....	6 s.h.
(Clinical experience practicum)	

*The student should be aware that the clinical experience hours necessitate travel to various offices or clinics.

NOTE: Prior to graduation, students are required to obtain CPR training. They may select either Iowa Heart Association or American Red Cross classes to satisfy this requirement. Clinical experience practicum shall be on a full-time basis (40 hours per week).

Course Descriptions - Optometric Assistant

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

15:110 Electronic Calculators (1 s.h.) [Open Entry/Open Exit] A study of the 10-key, electronic calculator. Applied business problems on the calculator. (0-30)

15:241 Human Relations (3 s.h.) Problems of defining the wants of the worker and of management and bringing these elements together in formal and informal organizations; implementing programs to help them achieve their common purpose to work together productively and cooperatively and with economic, psychological, and social satisfaction. (45-0)

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, interoffice memorandums, and informal business reports. A secondary emphasis will be placed on oral communication, listening skills, nonverbal communication, and international communication. (45-0)

94:150 Optometric Assisting I (3 s.h.) The responsibilities and functions of an optometric assistant; legal and ethical responsibilities; AOAR; history of optometry; introduction to optometric terminology; anatomy and physiology of the eye; ophthalmic optics geometrical, physical and physiological; history taking; visual skills testing. Introduction to dispensing techniques including lens neutralization, verification, use of lensometer, transposition, tolerances, frame selection, and adjustment. (45-0)

94:153 Optometric Assisting I Lab (4 s.h.) prerequisite: 94:150, Optometric Assisting I. The student will practice and perform the identified competencies in the laboratory setting. (0-120)

94:151 Optometric Assisting II (4 s.h.) prerequisite: 94:150, Optometric Assisting I; and 94:153, Optometric Assisting I Lab; Corequisite: 94:154, Optometric Assisting II Lab. Optometric examination skills and introduction to instrumentations. Pharmacology, emergency care, pathology, low vision, vision therapy. Contact lens: structure, fitting, theories, modification, verification, and patient instruction. Professionalism, liability, and public relations. Continuation of optometric terminology. (60-0)

94:154 Optometric Assisting II Lab (3 s.h.) prerequisites: 94:150, Optometric Assisting I; and 94:153, Optometric Assisting I Lab; Corequisite: 94:151, Optometric Assisting II. The student will practice and perform the identified competencies in the laboratory setting. (0-90)

94:152 Optometric Assisting III (6 s.h.) prerequisite: 15:109, Introduction to Accounting; 15:110, Electronic Calculators; 94:151, Optometric Assisting II; and 94:161, Optometric Office Practice II. Practical experience in selected optometrists' or ophthalmologists' offices under the supervision of the optometrist or assistant and the instructor. Will also include summarization and evaluation. (0-320)

94:160 Optometric Office Practice I (5 s.h.) prerequisite: Basic typing skills (35-40 wam). Management of an optometric office that includes preparing correspondence and patient records, filing, telephone techniques, receiving patients, making and keeping records of appointments, completing various types of insurance forms and Title XIX forms, some discussion and training on microcomputers and word processing, and other general office duties. (75-0)

94:161 Optometric Office Practice II (5 s.h.) prerequisite: 94:160, Optometric Office Practice I, or permission of instructor. A continuation of 94:160. (75-0)

Physical Therapist Assistant

The Physical Therapist Assistant Program is designed to prepare men and women to administer treatments to clients while working under the supervision of a licensed physical therapist. Their duties include assisting the physical therapist in implementing treatment programs according to the plan of care, training clients in exercises and activities of daily living, gait training, administering modalities such as ultrasound, electrical stimulation and whirlpools, client and family education, and reporting the client's response to treatment to the physical therapist.

Graduates are prepared to work in a variety of settings which include hospitals, long-term care facilities, home health care, private physical therapy clinics, and school settings.

The program is two academic years in length including one summer. Students must attain a C grade in all PTA courses 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. Upon completion of the curriculum, the student is awarded the associate of applied science degree. The program is accredited by the Commission on Accreditation in Physical Therapy Education. Graduates are eligible to sit for the licensure examination.

ENTRANCE REQUIREMENTS

Sixteen students are accepted into the program each fall. Application deadline is October 1 the year prior to entry into the program. The admissions committee will begin reviewing completed applications and making class selections in October, the year prior to entry into the program. Applications may be submitted at any time with priority given by date of application for those meeting the 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 appropriate NIACC counselor.

The applicant must also:

3. submit a paper of two pages or less (typewritten, double-spaced) indicating why he/she wants to be a physical therapist assistant.
4. obtain exposure to physical therapy and/or other health occupations through observation, volunteerism, or work experience for a minimum of 40 hours. A minimum of eight hours must be in a physical therapy setting. These hours must be documented by a supervisor.

An applicant's file will not be reviewed by the Admissions Committee until this documentation and all other 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)

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. Preference for entry/reentry will be given to those students who have been academically successful. 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.

CURRICULUM**First Term (Fall)**

*15:251 Medical Terminology OR 90:145 PTA Terminology (1 s.h.)	3 s.h.
*60:232 First Aid and Personal Safety	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.
15:114 Computer Literacy	1 s.h.
	15-17 s.h.

Second Term (Spring)

*30:101 Communications Skills I (30:101C) OR *30:101 Communications Skills (4 s.h.)	3 s.h.
70:149 Kinesiology	3 s.h.
*70:251 Anatomy and Physiology II	4 s.h.
90:146 Developmental Processes	3 s.h.
90:148 PTA Modalities	5 s.h.
	18-19 s.h.

Third Term (Summer - 7 weeks)

*00:000 Humanities Elective	3 s.h.
90:147 Pathophysiology	3 s.h.
90:150 PTA Assessment Procedures	3 s.h.
90:157 PTA Clinic I (1 week)	1 s.h.
	10 s.h.

Fourth Term (Fall)

*30:102 Communication Skills II (30:102C) OR *30:102 Communication Skills II (4 s.h.)	3 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.
90:216 PTA Clinic II (1 week)	1 s.h.
	16-17 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. Anatomy and Physiology must be taken within five years of beginning the program. Once enrolled in the program, courses must be taken in the identified sequence. Courses 90:218 and 90:219 will be assigned a pass/fail grade and will not be calculated in the student's GPA.

The student should be aware that the clinical experience hours necessitate travel to various hospitals and clinics. Clinics III and IV may necessitate housing expenses.

**Course Descriptions -
Physical Therapist Assistant**

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 palpitations and the basics of human gait. (30-30)

15:114 Computer Literacy (1 s.h.) [Open Entry/Open Exit] Introduces a student to basic computer hardware and software functions. Students with little or no computer background are encouraged to take this course. (This course will also introduce students to the proper use of E-mail and the Internet on the NIACC campus.) (0-30)

90:144 Fundamentals for PTA (3 s.h.) Introduction to patient care activities for the PTA, including infection control techniques, measuring and recording vital signs, patient positioning and draping, posture and body mechanics, and patient transfers. The cause and effect of immobility will be discussed. Preambulation activities will be covered including range of motion exercise, functional activities, and fitting of assistive devices. Gait training and negotiation of architectural barriers will be addressed. (30-30)

90:145 PTA Terminology (1 s.h.) Includes an orientation to the vocabulary of medicine with emphasis on terminology related to rehabilitation. (15-0)

90:146 Developmental Processes (3 s.h.) Prerequisite: 80:101, General Psychology. Presents normal physical, cognitive, and psychosocial developmental processes which affect an individual throughout the life span. Emphasis on integration of physical, psychosocial, cognitive, social, and cultural aspects of development. Clinic observation experience is included. (38-24)

90:147 Pathophysiology (3 s.h.) Prerequisite: 15:251, Medical 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)

90:148 PTA Modalities (5 s.h.) Prerequisite: 90:144, Fundamentals for PTA. Prepares the student to use modalities for patient treatment. Mechanisms of action, indications, and contraindications will be discussed for each modality covered. Modalities covered will include heat (hot packs, paraffin, ultrasound), diathermy, electromagnetic radiation, cold, intermittent compression pump, massage, biofeedback, external compression, whirlpool, wound dressings, traction, and electrical stimulation. Pain rating and skin assessment procedures will be included. Treatment regimes will be presented using case studies. (45-60)

90:149 Introduction to PTA (2 s.h.) Provides an overview of the physical therapy profession and the role of the physical therapist assistant, including legal and ethical aspects of practice. Additional topics include effective communication and interpersonal interaction, the patient care process, documentation, critical thinking, and problem-solving skills. Students are also introduced to the clinical education component of the program. (30-0)

90:150 PTA Assessment Procedures (3 s.h.) Prerequisite: 15:251, Medical Terminology or 90:145, PTA Terminology; 90:144, Fundamentals for PTA; and 90:147, Pathophysiology. Introduction to assessment skills performed by the PTA. Theory and application of goniometry, manual muscle testing, and various other assessment techniques will be covered. Laboratory demonstration and practice of each skill will be included. (30-30)

90:157 PTA Clinic I (1 s.h.) Prerequisite: All previous PTA courses. Introduces the student to the clinic. Skills learned in Fundamentals for PTA, Kinesiology, PTA Modalities, Kinesiology and PTA Assessment Procedures will be applied to direct patient care in selected clinical affiliations. (0-40)

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. (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, including joint mobilization, for specific joint injuries are presented. (30-30)

90:214 Neurology (4 s.h.) Provides an overview of the human nervous system in regards to anatomy, neurodevelopment, and function. Clinical neuropathologies, therapeutic analysis, and program planning will be discussed. Pediatric considerations, as well as adult neurological problems, are included. Exercise theories covered will include PNF, NDT, Brunnstrom, and motor learning. (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 also be covered. (30-0)

90:216 PTA Clinic II (1 s.h.) Prerequisite: All previous PTA technical courses. New concepts and skills learned in therapeutic exercise, neurology, and orthopedics, will be applied to direct patient care in selected clinical settings. (0-40)

90:217 PTA Seminar (1 s.h.) Prerequisite: All previous PTA technical courses. Ethical and legal aspects of being a physical therapist assistant and the role of the American Physical Therapy Association will be presented. The course will focus on the role of the physical therapist assistant in assisting the patient to achieve optimal health, mobility, and independence. Interpersonal relationships, functional independence, patient/family education, and discharge planning are emphasized. Case study presentations will be included to assist with clinical problem solving skills. (15-0)

90:218 PTA Clinic III (7 s.h.) Prerequisite: All previous PTA courses. Includes application of all previous concepts and skills as well as developing proficiency in previously learned skills while providing direct patient care in selected clinical settings. The goal is integration of PTA skills to the level of employability. This course is assigned a pass/fail grade. (0-320)

90:219 PTA Clinic IV (5 s.h.) Prerequisite: All previous PTA courses. Includes application of all previous concepts and skills as well as developing proficiency in previously learned skills while providing direct patient care in selected clinical settings. The goal is integration of PTA skills to the level of employability. This course is assigned a pass/fail grade. (0-240)

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 117-138 in the catalog or speak with a NIACC advisor.

REGIONAL HEALTH

Marge Wasicek, Director
Regional Health Education Center
(515) 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 percent 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-Ambulance, EMT-Defibrillation, or EMT-Basic.
6. Evidence of certification as an EMT-Ambulance, EMT-Defibrillation, or EMT-Basic for the state of Iowa or national registry.
7. Equivalent military training within the past year and experience as approved by the state agency.
8. 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.
89:189 EMT-I: Part I.....	4 s.h.
89:190 EMT-I: Part II.....	3 s.h.
89:191 EMT-Paramedic: Part I.....	8 s.h.
89:192 EMT-Paramedic: Part I.....	5 s.h.
89:193 EMT-Paramedic: Part III.....	5 s.h.
89:194 EMT-Paramedic Part IV	5 s.h.
Total	36 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

70:250 Anatomy and Physiology I.....	4 s.h.
70:251 Anatomy and Physiology II.....	4 s.h.
30:101 Communication Skills I.....	4 s.h.
30:102 Communication Skills 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 Principals of Management.....	3 s.h.
15:241 Human Relations.....	3 s.h.

Course Descriptions

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)

89:189 EMT-I: Part 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. (48-22)

89:190 EMT-I: Part II (3 s.h.)Prerequisite: 89:189, EMT I: Part I. This course is a continuation of 89:189. It includes 65 hours of hospital clinical experience and 70 hours of field experience. (0-135)

89:191 EMT-P: Part I (8 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 the most advanced prehospital training available. It includes roles and responsibilities, EMS systems and communications, legal aspects, rescue and major incident response, lifting and moving, patient assessment, advanced airway management, advanced shock management, administration of medications, respiratory emergencies, cardiovascular emergencies, including dysrhythmia recognition and ACLS. (97-48)

89:192 EMT-P: Part II (5 s.h.)Prerequisite 89:191, EMT-P: Part I. This course is a continuation of 89:191 and includes trauma, burns, 80 hours of hospital clinical experience, and 60 hours of field experience. (22-140)

89:193 EMT-P: Part III (5 s.h.)Prerequisite 89:192, EMT-P: Part II. This course includes 100 hours of hospital clinical experience and 120 hours of field experience. (0-220)

89:194 EMT-P: Part IV (5 s.h.)Prerequisite 89:193, EMT-P: Part III. This course includes medical emergencies (endocrine, nervous, abdominal, poisoning, environmental, geriatric, and pediatric), obstetrical emergencies, neonatal emergencies, and behavioral emergencies. (66-30)

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 which is necessary to be employed as a nurse aide in long-term care.

ENTRANCE REQUIREMENTS FOR NURSE AIDE

1. Must be 16 years or older.
2. Strength and endurance to meet the requirements in performing skills such as lifting and moving residents.
3. Completed pre-course instruction, videos, and competencies.
4. Physical exam by primary care provider. Rubella titer, TB test, hepatitis B vaccine, or 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. (30-30) and (0-45)

Quotable Quote:

To stay ahead, you must have your next idea waiting in the wings.

-Rosabeth Moss Kanter

PUBLIC SERVICE

Dr. Don Kamps, Evening Dean
(515) 422-4326

Dr. Jim Zirnhelt, Division Head,
Humanities and Social Science
(515) 422-4282

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 persons 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	12 s.h.
80:101 General Psychology*	3 s.h.
Mathematics*	3-4 s.h.
80:110 Sociology*	3 s.h.
70:101 Biological Princ. (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.
80:120 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.
60:232 First Aid and Personal Safety.....	1 s.h.

SUGGESTED COURSE

89:100 Cooperative Work Experience	2-5 s.h.
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*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 emphasis on expository methods of development and personal experience as supporting material. Students must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use word processors and a computer-aided editing system. (60-0)

30:102 Communication Skills II (4 s.h.) Continuation of 30:101 with emphasis on argumentative and persuasive writing and speaking, research methods, and language. Students must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use word processors and a computer-aided editing system. (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. 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)

80:101 General Psychology (3 s.h.) Prerequisite: New students with entering ACT or COMPASS reading scores below college level will be required to enroll in College Reading Skills (30:120). Introduction to the scientific study of behavior: a brief history of psychology as a science; influences of heredity and environment; motivation, frustration and conflict; the learning process, intelligence, perception, and mental health. (45-0)

80:110 Sociology (3 s.h.) An introductory course in sociology. A study of basic processes of group behavior identifying the main forces that hold groups together or weaken them. The study of society, family and group life, social organizations, culture, population, social change, and community structure, both urban and rural. (45-0)

80:111 Social Problems (3 s.h.) A survey of some of the important problems of social maladjustment in modern society. Contemporary social problems; their causes, complexities, and treatment; juvenile delinquency; crime; minority groups; family; mental health; alcoholism, narcotics, and housing. (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.) 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 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 college-transfer students to provide a work 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 90 hours of approved employment to be completed in a term. Appropriateness of learning objectives is an essential factor in the approval process. (15-435)

Quotable Quote:

Laws and institutions must go hand in hand with the progress of the human mind.

-Thomas Jefferson

INDUSTRIAL TECHNOLOGY

Keith Byman, Division Head
(515) 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

Electronics Technology

Manufacturing

General Machinist
Tool and Die Technology

Mechanical Design Technology

Welding - Evening

Industrial Technology careers have become highly sophisticated and specialized. Electronic controls are standard in nearly all branches of industrial technology. Continuous retraining throughout one's entire career is commonly required in many occupations. For all of these reasons, a strong background in math, science, technology, and communications as shown below is recommended for entrance into NIACC's Industrial Technology Programs.

Minimum Recommended High School Courses:

MATH3 years
Applied Math OR
Algebra, Geometry, Trigonometry

SCIENCE3 years
Applied Biology/Chemistry OR
Biology and Chemistry
Principles of Technology OR
Physics

ENGLISH/COMMUNICATIONS4 years
Applied Communications
Workplace Readiness
Traditional English courses

TECHNOLOGY
Drafting/CAD1 or 2 years
Electricity/Electronics1 year
Metals Processing1 year
Other Electives1 or 2 years

NIACC has support services through the Independent Study Lab (ISL) for students needing to strengthen their skills in one or more of these areas.

Quotable Quote:

When everything seems to be going against you, remember that the airplane takes off against the wind, not with it.

-Henry Ford

Automotive Service Technology

Automotive Service Technology is a 4½ semester associate of 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:

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 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.

Automotive Service Technology

ASSOCIATE OF APPLIED SCIENCE DEGREE

SCHEDULE

First Term

96:132 Electrical Concepts.....	3 s.h.
91:101 Career Math I	4 s.h.
95:130 Communications I.....	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

91:102 Career Math II	4 s.h.
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.
	19 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 Job-Seeking Skills	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 75 s.h.**DIPLOMA OPTION SCHEDULE**

Completion of First Term, Second Term, and Summer Term (2 ½ Semesters). Job-Seeking Skills (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.) Problems of defining the wants of the worker and of management and bringing these elements together in formal and informal organizations; implementing programs to help them achieve their common purpose to work together productively and cooperatively and with economic, psychological, and social satisfaction. (45-0)

89:150 Job-Seeking Skills (1 s.h.) Develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job-entry successful. (15-0)

91:101 Career Math I (4 s.h.) This course is intended to provide the student with mathematics topics and applications having specific emphasis to Automotive, Building Trades, Climate Control Technology, General Machinist, and Tool & Die Technology. Topics include basic mathematical operations, formulas, and multi-dimensional measurement and calculation. (60-0)

91:102 Career Math II (4 s.h.) This course is a continuation of Career Math I. Additional topics include geometry, trigonometry and descriptive statistics with an emphasis on application. (60-0)

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.

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.) The purpose of this course is to acquaint the student with electrical fundamentals. It will provide basic electrical and electronic background for a variety of technical fields which require such knowledge. Areas of instruction include safety, direct and alternating current, semiconductor and digital electronics, motors and controls, shop and lab practices. (30-45)

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. (30-45)

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.

The Building Trades Program develops students' 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 craft work 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 equipped with state-of-the-art power tools and places students in a competency-based setting where each individual learns 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.

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.

SCHEDULE

First Term (Summer)

91:101 Career Math I	4 s.h.
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.
	11 s.h.

Second Term (Fall)

91:153 Carpentry I.....	4 s.h.
91:154 Carpentry I Lab.....	4 s.h.
91:102 Career Math II	4 s.h.
91:159 Intro to the PC	1 s.h.
95:130 Communications I.....	3 s.h.
89:101 Cooperative Work Experience.....	1 s.h.
89:150 Job-Seeking Skills.....	1 s.h.
	18 s.h.

Third Term (Spring)

91:156 Carpentry II.....	4 s.h.
91:157 Carpentry II Lab.....	4 s.h.
96:150 Career Physics	4 s.h.
89:102 Cooperative Work Experience.....	1 s.h.
91:198 Blueprint Reading and Estimating.....	3 s.h.
15:214 Human Relations.....	3 s.h.
	19 s.h.

Total 48 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.
89:101 Cooperative Work Experience	1 s.h.
	4 s.h.

Total 8 s.h.

Course Descriptions - Building Trades

15:241 Human Relations (3 s.h.) Problems of defining the wants of the worker and of management and bringing these elements together in formal and informal organizations; implementing programs to help them achieve their common purpose to work together productively and cooperatively and with economic, psychological, and social satisfaction. (45-0)

89:100-102 Cooperative Work Experience (1 s.h.) Practical training on the job under the cooperative supervision of the college and work supervisor. (15-435)

89:150 Job-Seeking Skills (1 s.h.) Develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job entry successful. (15-0)

91:101 Career Math I (4 s.h.) This course is intended to provide the student with mathematics topics and applications having specific emphasis to Automotive, Building Trades, Climate Control Technology, General Machinist, and Tool & Die Technology. Topics include basic mathematical operations, formulas, and multi-dimensional measurement and calculation. (60-0)

91:102 Career Math II (4 s.h.) This course is a continuation of Career Math I. Additional topics include geometry, trigonometry and descriptive statistics with an emphasis on application. (60-0)

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 hand tools; basic power tools; job site safety; printreading; 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; printreading; 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.

91:156 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; printreading; 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.

91:198 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: 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)

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

91:101 Career Math I	4 s.h.
95:130 Communications I.....	3 s.h.
96:132 Electrical Concepts.....	3 s.h.
96:128 Residential Heating Systems	4 s.h.
96:129 Troubleshooting Heating Systems	3 s.h.
	17 s.h.

Second Term

89:150 Job-Seeking Skills	1 s.h.
91:102 Career Math II	4 s.h.
96:134 Air-Conditioning Principles	2 s.h.
96:150 Career Physics	4 s.h.
96:138 Residential Air-Conditioning Systems	4 s.h.
96:139 Troubleshooting Air-Cond. Systems.....	3 s.h.
	18 s.h.

Total 35 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

91:101 Career Math I	4 s.h.
95:130 Communications I.....	3 s.h.
96:132 Electrical Concepts.....	3 s.h.
96:128 Residential Heating Systems	4 s.h.
96:129 Troubleshooting Heating Systems	3 s.h.
	17 s.h.

Second Term

91:102 Career Math II	4 s.h.
96:134 Air-Conditioning Principles	2 s.h.
96:150 Career Physics	4 s.h.
96:138 Residential Air-Conditioning Systems	4 s.h.
96:139 Troubleshooting Air-Cond. Systems.....	3 s.h.
	17 s.h.

Third Term

15:134 Computer Applications OR	
15:140 Intro 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 Job-Seeking Skills.....	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 68 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 electronic spreadsheets, word processing software, and data base management software. (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, data base 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.) Problems of defining the wants of the worker and of management and bringing these elements together in formal and informal organizations; implementing programs to help them achieve their common purpose to work together productively and cooperatively and with economic, psychological, and social satisfaction. (45-0)

89:150 Job-Seeking Skills (1 s.h.) Develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job-entry successful. (15-0)

91:101 Career Math I (4 s.h.) This course is intended to provide the student with mathematics topics and applications having specific emphasis to Automotive, Building Trades, Climate Control Technology, General Machinist, and Tool & Die Technology. Topics include basic mathematical operations, formulas, and multi-dimensional measurement and calculation. (60-0)

91:102 Career Math II (4 s.h.) This course is a continuation of Career Math I. Additional topics include geometry, trigonometry and descriptive statistics with an emphasis on application. (60-0)

91:124 Technical Graphics (2 s.h.) 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.

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.) 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 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.) The purpose of this course is to acquaint the student with electrical fundamentals. It will provide basic electrical and electronic background for a variety of technical fields which require such knowledge. Areas of instruction include safety, direct and alternating current, semiconductor and digital electronics, motors and controls, shop and lab practices. (30-45)

96:134 Air-Conditioning Principles (2 s.h.) 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.) Use of selected sheet metal tools, layout, cutting, forming, and assembly of sheet metal as well as soldering and brazing processes. (15-45)

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 rooftop 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 airflow 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. A course 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:

Nobody can go back and start a new beginning, but anyone can start today and make a new ending.

-Maria Robinson

Electronics Technology

Electronics Technology is an associate of applied science degree program designed to prepare the graduate for immediate employment as electronic maintenance personnel in manufacturing settings and with manufacturers of electronic equipment.

ACCREDITATION

The Electronics Technology Program is fully accredited by the National Association of Industrial Technology (NAIT). This is your guarantee that these programs have attained the highest standards and remain committed to providing you with the best education possible.

CERTIFICATIONS

Graduates of the Electronics Technology Program are automatically eligible for recognition as a Certified Industrial Technologist (CIT) by the National Association of Industrial Technology (NAIT). Applicable fees are paid by the graduate if certification is desired. Students may also earn recognition as a Certified Electronic Technician Associate Level (CETa) by the Electronics Technicians Association (ETA). To earn such recognition, the student must pass the National Certified Electronics Technician Exam which is required of all program completers. These certifications are additional evidence to you and potential employers of NIACC's commitment to your success.

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 industrial technology fields as manufacturing, electromechanical systems, engineering technology, or supervision and management. Help of a NIACC counselor or program instructor is required.

ENTRANCE REQUIREMENTS

1. Two years of high school algebra or applied math 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.

Graduates of the Electronics Technology Program may find work in the following occupations:

- *Electronics technician
- *Industrial process technician
- *Industrial maintenance technician
- *Instrumentation technician
- *Electromechanical technician
- *Control systems technician
- *Computer automated process control technician

Special Program Requirements

As part of the requirements for graduation, students are required to take the Certified Electronics Technology (CET) Exam during their fourth semester. The cost (\$50) for the exam is the student's responsibility. Students are required to complete 12 semester hours of their technical core course work for the Electronics Technology Program at North Iowa Area Community College.

SUGGESTED SCHEDULE

First Term

96:132 Electrical Concepts.....	3 s.h.
91:104 Intro to Tech Computing & CAD.....	3 s.h.
91:175 DC/AC Theory.....	5 s.h.
91:107 Technical Mathematics I OR	4 s.h.
40:151 College Alg & Trig I (4 s.h.)	
95:130 Communications I OR	3 s.h.
30:101 Comm Skills I (3 s.h. or 4 s.h.)	

18 s.h.

Second Term

91:179 Electronic Devices & Circuits	3 s.h.
91:214 Digital Electronics.....	3 s.h.
91:108 Technical Mathematics II OR	4 s.h.
40:152 College Alg & Trig II (4 s.h.)	
91:105 Motors, Controls & Industrial Wiring.....	4 s.h.
92:202 C/C++ Programming	3 s.h.
95:131 Communications II OR	3 s.h.
30:102 Comm Skills II (3 s.h. or 4 s.h.)	

20 s.h.

Summer Term

91:110 Electronics Tech Internship.....	2 s.h.
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Third Term

91:281 Microprocessors.....	3 s.h.
91:204 Advanced Control Systems.....	5 s.h.
91:109 Technical Mathematics III OR	3 s.h.
40:240 Calculus For Business (3 s.h.)	
91:210 Technical Physics I OR	4 s.h.
70:280 General Physics I (4 s.h.) OR	
70:122 Prin of Physics (4 s.h.) OR	
70:140 Introductory Chemistry (4 s.h.)	
92:118 Fluid Power	3 s.h.

18 s.h.

Fourth Term

91:206 Computer Automated Manufacturing	3 s.h.
91:207 Instrumentation Technology	3 s.h.
92:227 Automated Manufacturing Processes	3 s.h.
89:150 Job-Seeking Skills	1 s.h.
15:241 Human Relations OR	3 s.h.
80:101 General Psychology (3 s.h.)	
91:211 Technical Physics II OR	4 s.h.
70:281 Gen Physics II (4 s.h.) OR	
70:122 Prin of Physics (4 s.h.) OR	
70:140 Introductory Chemistry (4 s.h.)	
91:289 Certified Electronics Tech Exam	
Elective (2 s.h.)	

17 s.h.

Total 75 s.h.**Course Descriptions -
Electronics Technology**

15:241 Human Relations (3 s.h.) Problems of defining the wants of the worker and of management and bringing these elements together in formal and informal organizations; implementing programs to help them achieve their common purpose to work together productively and cooperatively and with economic, psychological, and social satisfaction. (45-0)

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 must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

30:101 Communication Skills I (4 s.h.) Improvement of skills in reading, writing, speaking, and listening, with emphasis on expository methods of development and personal experience as supporting material. Students must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use word processors and the computer-aided editing system, Writer's Workbench. (60-0)

30:102C Communication Skills II (3 s.h.) Continuation of 30:101 with emphasis on argumentative and persuasive writing, research methods, and language. Students must meet minimum competency requirements in writing to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

30:102 Communications Skills II (4 s.h.) Continuation of 30:101 with emphasis on argumentative and persuasive writing and speaking, research methods, and language. Students must meet minimum competency requirements in writing and speaking to receive a grade C or higher. Students may use the computer editing system, Writer's Workbench. (60-0)

40:151 College Algebra & Trigonometry I (4 s.h.) Prerequisite: three semesters of high school algebra or 40:120, Intermediate Algebra, or equivalent. 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, and calculus of several variables. (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, 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.) Prerequisite: New students with entering ACT or COMPASS reading scores below college level will be required to enroll in College Reading Skills (30:120). Introduction to the scientific study of behavior: a brief history of psychology as a science; influences of heredity and environment; motivation, frustration and conflict; the learning process, intelligence, perception, and mental health. (45-0)

89:150 Job-Seeking Skills (1 s.h.) Develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job entry successful. (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 Computer-Aided Drafting is designed to familiarize the student with microcomputer basics relating to occupations in the industrial/technical area. Topics include elementary computer management and organization using Microsoft WINDOWS, disk organization and access, file handling, basic word processing, and two-dimensional computer-aided drafting (CAD). (30-30)

91:105 Motors, Controls, and Industrial Wiring (4 s.h.) Prerequisite: 96:132, Electrical Concepts; and 91:178, 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. (30-60)

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)

91:110 Electronics Tech Internship (2 s.h.) Prerequisite: sophomore status in the Electronics 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)

91:113 Electronic Devices and Circuits II (4 s.h.) Prerequisite/Corequisite: 91:179, Electronic Devices and Circuits I; 91:108, Technical Mathematics II. Advanced topics in electronic devices including field effect transistors (FETs), operational amplifiers (op amps), active filters, instrumentation circuits using op amps, thyristors, and voltage regulation. Applications and troubleshooting techniques. (30-60)

91:118 Computer Programming and Programmable Logic Controllers (3 s.h.) Prerequisite/Corequisite: 91:104, Introduction to Technical Computing and CAD. Structured programming using Quick BASIC and QBASIC. General input and output, subroutines, arrays, data handling, external I/O, and file I/O are covered. Practical program projects are utilized to reinforce programming theory. Introduction to programmable logic controllers (PLCs) using the Allen Bradley SLC500 and advanced programming software. Elementary ladder logic, internal and external contact instructions, counters, timers, program development techniques, and troubleshooting. (30-30)

91:175 DC/AC Theory (5 s.h.) Prerequisite/Corequisite: 96:132 Electrical Concepts, 91:107, Technical Mathematics I. Study of the nature of electricity involving direct and alternating current. DC circuit analysis utilizing more advanced techniques such as: superposition, Thevenin'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 a continued application of electronic test equipment; oscilloscopes, meters, and power supplies found in laboratory environments. (45-105)

91:179 Electronic Devices and Circuits I (3 s.h.) Prerequisite/Corequisite: 91:178, DC/AC Theory; 91:107, Technical Mathematics I. Study of diodes and bipolar transistors as they are used in both AC and DC electronic circuits. Applications such as power supplies, switching circuits, and amplifier circuits are covered. Special purpose semiconductors and their applications are also explored. Common base, common collector, and common emitter amplifier configurations and associated analysis techniques are covered. Both circuit analysis and measurement techniques using meters and oscilloscopes are stressed. Computer simulation of the devices under study, as they are utilized in AC and DC circuits, is covered. A term paper and oral presentation are required. (30-45)

91:204 Advanced Control Systems (5 s.h.) Prerequisite/Corequisite: 91:105, Motors, Controls, and Industrial Wiring. Introduction to programmable logic controllers (PLC's) using the Allen Bradley SLC500 and RS Logix 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. Instrumentation programming with LabVIEW. Projects involving practical field devices and program development. (40-105)

91:206 Computer Automated Manufacturing (3 s.h.)

Prerequisite/Corequisite: 92:227, Automated Manufacturing Processes. Introduction to robotic fundamentals including the integration of robots and programmable logic controllers in the operation of a flexible manufacturing line (FML). Group dynamics, project structure, and troubleshooting techniques. (30-45)

91:207 Instrumentation Technology (3 s.h.) Prerequisite/Corequisite: 91:118, Computer Programming and PLCs; 91:113, Electronic Devices and Circuits II. Modern instrumentation techniques as they apply to the manufacturing environment. Instrumentation amplifiers and linear integrated circuits for industrial applications. Industrial sensors, transducers, and related components. Industrial process control theory, telemetry, and data communication. A final group instrumentation project is required. (30-45)

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: 91:178, 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. (30-45)

91:281 Microprocessors (3 s.h.) Prerequisite/Corequisite: 91:215, Digital Electronics. Advanced topics in digital electronics including timers, analog to digital (A/D) and digital to analog (D/A) converters, and optocouplers. Microprocessor theory and architecture are covered. The architecture and instruction set of the

Motorola 68HC11 family are studied. Programming techniques utilizing elementary assembly language for the MC68HC11 are practiced. Applications and troubleshooting techniques. (30-30)

91:289 Certified Electronics Technician Exam Review (2 s.h.)

Prerequisite/Corequisite: 91:207, Instrumentation Technology. Review of fundamental electrical and electronic circuits are preparation for the Associate Level Certified Electronic Technician Examination. Application specific topics in radio frequency (RF) communications. (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 as assigned by Division Chair and approved by the Vice President for Academic Affairs.

92:118 Fluid Power (3 s.h.)

Prerequisite/Corequisite: 91:107, Technical Mathematics I. Principles of fluid power pertaining to pressure, volume, and flow. Overview of hydraulic and pneumatic power generation, control transmission, and actuation devices. Computer design and simulation of fluid power circuits. Hands-on labs using practical fluid power equipment. (30-30)

92:202 C/C++ Programming (3 s.h.)

Prerequisite: 91:104 Intro to Technical Computing and CAD. Structured computer programming 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)

92:227 Automated Manufacturing Processes (3 s.h.)

Prerequisite/Corequisite: 91:118, Computer Programming and Programmable Logic Controllers. Fundamentals of computer numerical control (CNC). Programming of CNC machines using G and M codes. Projects on CNC mill and/or CNC lathe. Fundamental skills in forming, separating, and fastening. (30-45)

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.)

The purpose of this course is to acquaint the student with electrical fundamentals. It will provide basic electrical and electronic background for a variety of technical fields which require such knowledge. Areas of instruction include safety, direct and alternating current, semiconductor and digital electronics, motors and controls, shop and lab practices. (30-45)

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 of 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

91:101 Career Math I	4 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

91:102 Career Math II	4 s.h.
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.
	19 s.h.

Total **37 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-numeric 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

91:101 Career Math I	4 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

91:102 Career Math II	4 s.h.
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.
	19 s.h.

Third Term (Summer)

96:168 Fundamentals of Drafting.....	1 s.h.
96:169 Welding	2 s.h.
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.
	11 s.h.

Fourth Term

15:241 Human Relations.....	3 s.h.
89:150 Job-Seeking Skills.....	1 s.h.
96:270 Computer-Aided Drafting (CAD).....	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 **80 s.h.**

Course Descriptions - General Machinist and Tool and Die

89:150 Job-Seeking Skills (1 s.h.) Develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job entry successful. (15-0)

91:101 Career Math I (4 s.h.) This course is intended to provide the student with mathematics topics and applications having specific emphasis to Automotive, Building Trades, Climate Control Technology, General Machinist, and Tool & Die Technology. Topics include basic mathematical operations, formulas, and multi-dimensional measurement and calculation. (60-0)

91:102 Career Math II (4 s.h.) This course is a continuation of Career Math I. Additional topics include geometry, trigonometry and descriptive statistics with an emphasis on application. (60-0)

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.) In this introductory course, students explore and compare DOS and Windows operating environments using the keyboard and mouse. The students create documents while exploring Microsoft Word. The students create spreadsheets and charts using Microsoft Excel, pull-down menus, tool bars, copying techniques, formatting techniques, and data management. (0-30)

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: 91:101, Career 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 and to be taken concurrently with 91:102, Career 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. 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)

96:168 Fundamentals of Drafting (1 s.h.) Theory, technical skills, industrial applications, and practices of technical sketching, engineering lettering, selection and use of equipment, geometric construction, multi-views, and auxiliary views. (0-30)

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: 96:166, Machine Tool Practices II, 96:167, Fundamentals of CNC. This course is an introduction to the design of industrial dies and machining characteristics of die components. The student is introduced to additional machining skills that will be encountered in typical die shops in the building of 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. 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)

96:192 Intro to Geometric Dimensioning and Tolerancing (2 s.h.) Begins with an introduction to the international engineering language, Geometric Dimensioning and 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 orthographic 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 output devices such as printers and plotters 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 die from a blueprint. Emphasis is placed on the die building procedures learned in Tool and Die Making I toward fabricating more complex dies. Instruction is given on the considerations involved in developing die components, such as calculation of clearances, cutting forces, press tonnage requirements, and practice in building a complete functional die from a blueprint. (45-225)

96:272 Computer-Aided Manufacturing (CAM) (3 s.h.) Prerequisite/Corequisite: 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 and CNC lathes. 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, Plastic Materials and Methods. Introduces the student to the field of mold making for the plastic injection industry. Focus is placed on mold theory, mold repair, identification of problems, and the correction as related to thermoplastic injection molds, standardization of mold components, mold blueprint reading, and machine shop skills necessary for mold making. In addition, this course gives students the necessary basic skills of stoning and polishing as well as hands-on experience necessary to manufac-

ture mold plates and ejection systems. This course gives the students an opportunity to make a prototype injection mold of their design. (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)

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 percent of their course work for the Mechanical Design Technology Program at North Iowa Area Community College.

SUGGESTED SCHEDULE

First Term

90:121 Intro to Drafting.....	3 s.h.
90:122 Drafting.....	3 s.h.
90:133 Computer Orientation	1 s.h.
91:107 Technical Mathematics I OR	4 s.h.
40:151 College Alg & Trig I (4 s.h.)	
91:120 Manufacturing Processes I.....	2 s.h.
15:241 Human Relations OR	3 s.h.
80:101 Gen Psychology (3 s.h.)	
95:130 Communications I OR	3 s.h.
30:101 Comm Skills I (3 s.h. or 4 s.h.)	

19 s.h.

Second Term

90:131 Drafting II.....	7 s.h.
91:108 Technical Mathematics II OR	4 s.h.
40:152 College Alg & Trig II (4 s.h.)	
91:121 Manufacturing Processes II.....	2 s.h.
91:150 Statics.....	2 s.h.
95:131 Communications II OR	3 s.h.
30:102 Comm Skills II (3 s.h. or 4 s.h.)	

18 s.h.

Third Term

91:109 Technical Mathematics III OR	3 s.h.
40:240 Calculus For Business (3 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.
91:210 Technical Physics I OR	4 s.h.
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.)	

18 s.h.

Fourth Term

90:231 Machine Element Design	9 s.h.
91:212 Design Research Laboratory.....	2 s.h.
91:240 Fluid Mechanics	3 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.)	
89:150 Job-Seeking Skills.....	1 s.h.

19 s.h.

Total 74 s.h.

Course Descriptions - Mechanical Design Technology

15:241 Human Relations (3 s.h.) Problems of defining the wants of the worker and of management and bringing these elements together in formal and informal organizations; implementing programs to help them achieve their common purpose to work together productively and cooperatively and with economic, psychological, and social satisfaction. (45-0)

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 must meet minimum competency

requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

30:101 Communication Skills I (4 s.h.) Improvement of skills in reading, writing, speaking, and listening, with emphasis on expository methods of development and personal experience as supporting material. Students must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use word processors and a computer-aided editing system, Writer's Workbench. (60-0)

30:102C Communication Skills II (3 s.h.) continuation of 30:101 with emphasis on argumentative and persuasive writing, research methods, and language. Students must meet minimum competency requirements in writing to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

30:102 Communications Skills II (4 s.h.) continuation of 30:101 with emphasis on argumentative and persuasive writing and speaking, research methods, and language. Students must meet minimum competency requirements in writing and speaking to receive a grade C or higher. Students may use the computer-aided editing system, Writer's Workbench. (60-0)

40:151 College Algebra & Trigonometry I (4 s.h.) prerequisite: three semesters of high school algebra or 40:120, Intermediate Algebra, or equivalent. 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, and calculus of several variables. (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.) prerequisite: New students with entering ACT or COMPASS reading scores below college level will be required to coenroll in College Reading Skills (30:120). Introduction to the scientific study of behavior: a brief history of psychology as a science; influences of heredity and environment; motivation, frustration and conflict; the learning process, intelligence, perception, and mental health. (45-0)

89:150 Job-Seeking Skills (1 s.h.) develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job entry successful. (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 (3 s.h.) prerequisite: 90:121, Intro to Drafting. A continuation of AutoCAD and drafting fundamentals; multiview 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 2D Fundamentals; array dimensioning (basic, intermediate, advanced), tolerancing, sections, threads and fasteners, editing using grips, display options, editing polylines and splines, blocks, viewports, attributes, bill of materials, and assemblies. (60-195)

90:133 Computer Orientation (1 s.h.) An introductory course which includes an overview of microprocessors and computer hardware; file, folder, and desktop navigation and manipulation within the Windows NT operating system; basic word processor and spreadsheet operations. (15-0)

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.) Principles of basic metallurgy, technical report writing, and foundry technique. (15-30)

91:121 Manufacturing Processes II (2 s.h.) Knowledge and skills in the use of selected machine tools and precision measurement, oxyacetylene welding, TIG and MIG welding. (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, noncurrent-coplanar, and 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. (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. A certificate will be awarded at the end of each semester to those students acquiring the competencies outlined in the program. A student may take the program in either order.

Those currently involved in the following areas will benefit from the program:

- * Maintenance
- * Farm or Ag related
- * Auto
- * Construction
- * General industrial
- * Hobbies or backyard

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 setup 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
 91:103 Industrial Math I
 91:121 Manufacturing Processes II
 91:128 Basic Electricity
 91:129 Industrial Electricity I
 91:164 Electrical Wiring I
 91:171 Electrical Wiring II
 92:202 C/C++ Programming
 96:131 Refrigeration Systems
 98:164 Properties of Metals
 *96:180 Survey of Machine Tool Practices I
 *96:181 Survey of Machine Tool Practices II
 *96:182 Survey of Machine Tool Practices III
 98:191 Shielded Metal Arc and Gas Metal Arc
 *These courses taken in sequence are the equivalent of Machine Tool Practice I (96:165).

Course Descriptions Industrial Electives

90:128 Introduction to CAD (2 s.h.) Prerequisite/Corequisite: none. A class in Auto CAD Release 13 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 AutoCAD 13. (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. (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. (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 Ac-

ademic Affairs, credit may be given upon satisfactory completion of the project. (45-0)

91:103 Industrial Math I (3 s.h.) Basic math required for manufacturing in the industrial setting. Practical problems are covered in class with the instructor. (45-0)

91:121 Manufacturing Processes II (2 s.h.) Knowledge and skills in the use of selected machine tools and precision measurement, oxyacetylene welding, TIG and MIG welding. (15-30)

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 programming 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)

96:131 Refrigeration Systems (3 s.h.) This course introduces the student to refrigeration concepts and systems. The theory of heat and pressure and the vapor compression cycle are covered along with hands-on experience in assembling, testing, and maintaining refrigeration systems. (15-90)

96:180 Survey of Machine Tool Practices I (4 s.h.) The student safely uses basic measuring tools, machine tools, and layout/inspection tools. Safety is taught and enforced as it applies to each machine process. Proper terminology of the machinist trade is emphasized. The student follows blueprints to produce products within tolerances specified. (30-90)

96:181 Survey of Machine Tool Practices II (3 s.h.) Continues Survey of Machine Tool Practices I. The student safely uses basic measuring tools, machine tools, and layout/inspection tools. Emphasis on basic milling machines. Safety is taught and enforced as it applies to each machine process. Proper terminology of the machinist trade is emphasized. The student follows blueprints to produce products within tolerances specified. (15-90)

96:182 Survey of Machine Tool Practices III (2 s.h.) With the emphasis on safety, the student practices advanced measurement techniques, surface grinding to close tolerances, cylindrical grinding, advanced turning on the lathe using 4-jaw chucks and steady rests. (15-90)

98:164 Properties of Metals (2 s.h.) lecture/lab course which covers the most commonly used metals and their important characteristics. The course covers the two main steel numbering systems, symbols for the Aluminum Association, and basic types of cast iron. A student becomes familiar with the spark test for identifying metals. (15-30)

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, electro-mechanical 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 117-138 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 a 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, post secondary 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 call the NIACC Tech Prep Coordinator at 515-422-4177 or 1-888-GO NIACC.

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.

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. Joint admission is one of the outcomes of NIACC's Articulation 2000 Program.

Transfer Division Chairs:

Gary Christiansen, Business
(515) 422-4226

Larry Eichmeier, Agriculture
(515) 422-4225

Donna Orton, Health
(515) 422-4216

Dennis Vrba, Natural Science
(515) 422-4320

James Zirnhelt, Social Science and Humanities
(515) 422-4282

Patrick Kennedy, Transfer Relations
(515) 422-4325

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 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 proficient by obtaining a C or better in written and verbal communication courses. Students completing the prescribed courses will fulfill the College of Agriculture 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.
Commodity Marketing	2 s.h.
Intro to Ag Business	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.
Computer-Aided 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.

Simpson College

Courses which may be taken at North Iowa Area Community College to complete major requirements at Simpson College:

Art History I	4 s.h.
Art History II	4 s.h.
Art in Elementary School	3 s.h.
Drawing	3 s.h.
Ceramics	3 s.h.
Creative Photography	3 s.h.
Intermediate Photography	3 s.h.
Painting II	3 s.h.
Two-Dimensional Design	3 s.h.
Painting I	3 s.h.

Upper Iowa University

Students should consider taking the following courses to meet requirements. Completion of the A.A. degree at NIACC will meet the general education requirements.

Essentials of Art	3 s.h.
Art History I & II	8 s.h.
Drawing	3 s.h.
Ceramics	3 s.h.
Painting I & II	6 s.h.
Art in Elementary School	3 s.h.
Educational Psychology	3 s.h.
Human Growth and Development	3 s.h.
Educational Measurement and Evaluation	2 s.h.
Mainstreaming the Exceptional Student	2 s.h.
Ed Media Techniques	3 s.h.
Intro to Teaching	3 s.h.

Art Education

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.

Essentials of Art	3 s.h.
History of Art I and II	8 s.h.
Drawing	3 s.h.
Ceramics	3 s.h.
Painting I and II	6 s.h.
Art in the Elementary School	3 s.h.

Athletic Trainer**Iowa State University**

The athletic training program prepares students for the NATA certification examination. Admission to this program is determined by GPA in foundation courses and clinical hours under a certified athletic trainer. The program is administered through the Department of Health and Human Performance. See course recommendations under Physical Education-Athletic Training.

Also available at the University of Iowa, the University of Northern Iowa, and Minnesota State University - Mankato. (Need 1500 hours of supervised training.)

Biology**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.

Biology I and II	6 s.h.
Microbiology	4 s.h.
General Chemistry I and II	6 s.h.
General Physics I and II	8 s.h.
Organic Chemistry I and II	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 College:

Biology I and II	8 s.h.
Microbiology	4 s.h.
Human Biology	*4 s.h.
Genetics	4 s.h.
Nutrition OR Health and Nutrition	3 s.h.
Anatomy and Physiology I and II	8 s.h.
Chemistry Principles I and II	10 s.h.
General Physics I and II OR	

College Physics I and II 8-10 s.h.

* Human Biology does not fulfill a requirement for Biology 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.
Principles of Management	3 s.h.
Interm Algebra	3 s.h.
Quantitative Methods	3 s.h.
Marketing	3 s.h.
Cost Accounting	3 s.h.
Business Statistics	3 s.h.

MANAGEMENT/ ENTREPRENEURSHIP

Principles of Management	3 s.h.
Business Law I	3 s.h.
Interm Algebra	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

Interm Algebra	3 s.h.
Quantitative Methods	3 s.h.
Principles of Management	3 s.h.
Business Law I	3 s.h.
Marketing	3 s.h.
Business Statistics	3 s.h.

MANAGEMENT INFORMATION SYSTEMS

Interm Algebra	3 s.h.
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Quantitative Methods	3 s.h.
Prin of Management	3 s.h.
Business Law I	3 s.h.
Marketing	3 s.h.
Business Statistics	3 s.h.
Intro to MIS	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.

In addition to common requirements for all institutions listed, students can complete the following courses:

Public Speaking	2 s.h.
Lab Science or Advanced Math	8 s.h.
American Social System (Social Sciences)	6 s.h.
Cultural/Ethical Traditions (Humanities)	6 s.h.
Global Perspective	6 s.h.

Additional courses that should be completed as part of the common business curricula.

Business Law I	3 s.h.
Calculus for Business	3 s.h.
Business Statistics	3 s.h.

For specific general education requirements, business majors should consult the College of Business & Public Administration transfer plan in the Drake University Articulation Agreement: a course equivalency guide and transfer plans, available at the counseling office or by contacting the Drake University Office of Admission.

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.

Minnesota State University - Mankato

ACCOUNTING	
Natural Sciences	4 s.h.
College Algebra and Trigonometry I	4 s.h.
Distributed Requirement (NIACC)	8 s.h.
Business Statistics	3 s.h.

MARKETING, MANAGEMENT, INTERNATIONAL BUSINESS, FINANCE, REAL ESTATE, AND INSURANCE	
Natural Sciences	4 s.h.
College Algebra and Trigonometry I	4 s.h.
Electives	12 s.h.
Foreign Language (International Business)	8 s.h.
(Intermediate level)	
Natural Science 140	3 s.h.

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.
General Insurance	3 s.h.
Business Statistics	3 s.h.
Marketing	3 s.h.
Cost Accounting	3 s.h.
Intro to Accounting	3 s.h.
Accounting Principles I and II	6 s.h.
Managing the Entrepreneurial Venture	3 s.h.
Managing Human Resources	3 s.h.
On-The-Job Training	3 s.h.

University of Iowa (2.6 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 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.

University of Northern Iowa
(Min. 2.50 GPA)

ACCOUNTING, FINANCE, MANAGEMENT, MARKETING	
Quantitative Methods	3 s.h.
Business Statistics	3 s.h.
Introduction to Computers	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	3 s.h.
MANAGEMENT INFORMATION SYSTEMS MAJOR	
Quantitative Methods	3 s.h.
Business Statistics	3 s.h.
Introduction to MIS	3 s.h.
Introduction to Computers	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 (page 121).

MARKETING MAJOR	
Business Law I	3 s.h.
Introduction to MIS	3 s.h.
Business Statistics	3 s.h.
Marketing	3 s.h.
Principles of Management	3 s.h.
Principles of Advertising	3 s.h.
Data Base Management	3 s.h.
Retailing	3 s.h.
ACCOUNTING MAJOR	
Business Law I	3 s.h.
Introduction to MIS	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.
Introduction to MIS	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.
Introduction to MIS	3 s.h.
Business Statistics	3 s.h.
Marketing	3 s.h.
Principles of Management	3 s.h.
Data Base Management	3 s.h.

Wartburg College

ACCOUNTING, FINANCE	
One laboratory science	4 s.h.
Western Civilization	4 s.h.
Quantitative Methods	3 s.h.
Introduction to Computers	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.
Introduction to Computers	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.
Introduction to Computers	3 s.h.
Business Statistics	3 s.h.

Chiropractic

Palmer (Min. GPA 2.50)

Communication Skills I & II	8 s.h.
General Chemistry I & II	10 s.h.
OR	
Chemistry Princ. 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

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.

Computer Science

Drake University

COMPUTER SCIENCE

Students may take the following courses in the major area at NIACC:

Calculus I and II	8 s.h.
Fortran	3 s.h.

Computer Science majors should consult the Arts & Sciences transfer plan for general education requirements in the Drake University Articulation Agreement: a course equivalency guide and transfer plans, available at the counseling office or by contacting the Drake University Office of Admission.

INFORMATION SYSTEMS

Students may take the following courses in the major area at NIACC:

Fortran*	3 s.h.
Computer Applications or Intro to Computers	3 s.h.
Intro to Management Information Systems. . .	3 s.h.

*Only one computer language course is required for Information Systems majors. One or the other will meet the requirement.

Information Systems majors should consult the College of Business and Public Administration transfer plan for general education requirements in the Drake University Articulation Agreement: a course equivalency guide and transfer plans, available at the counseling office or by contacting the Drake University Office of Admission.

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.
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.
Calculus I & II (CS only)	8 s.h.
Natural Science 140.	3 s.h.
Chemistry Principles I & II (CS only) OR College Physics I & II (CS only)	8-10 s.h.

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

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.
Intro to Statistics	3 s.h.
Fortran	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:

Calculus I and Intro to Statistics	8 s.h.
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B.S. Degree:

Calculus I and II	8 s.h.
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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.

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.
Chemistry Principles I and II.	10 s.h.
College Physics I and II	10 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 on or before October 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.

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.

1. Specialization in single discipline of 12 hours (not duplicated elsewhere).
2. Application form for admission to teacher education program must be completed.
3. A GPA of 2.50 is required to be able to student teach.
4. Skills proficiency in math and written communications. (Exams must be passed before eligible for field experience.)
5. All Incompletes must be completed before eligible to student teach.
6. 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 Media Techniques	3 s.h.
Introduction to Philosophy OR A.A. degree	3 s.h.

1. Secondary Education requires major in content area.
2. Application form for admission to teacher education program must be completed.
3. A GPA of 2.50 is required to student teach.

4. Skills proficiency in math and written communications necessary. (Exams must be passed prior to eligibility for field experience.)
5. All Incompletes must be completed prior to beginning student teaching.
6. 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 2.5 at 60 semester hours of credit. Both Elementary and Secondary Education majors complete the following courses:

- Communication Skills I and II 8 s.h.
- Mathematics for Elementary Teachers (secondary only). 3 s.h.
- American History OR
- American Government 3 s.h.
- Philosophy 3 s.h.
- Public Speaking 2 s.h.
- American Social Systems * 9 s.h. from 2 areas
- Global Perspective & Hum * 9 s.h. from 2 areas
- Science Perspective * 10 s.h. from 2 areas, 1 lab
- Intro to Teaching 3 s.h.

*For specific general education requirements, prospective students should consult the School of Education transfer plan in the Drake University Articulation Agreement: a course equivalency guide and transfer plans, available at the counseling office or by contacting the Drake Office of Admission. Suggested NIACC courses for teaching endorsement requirements are also listed.

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 on Reading; 172 on Writing; and 170 on 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 following courses at North Iowa Area Community College will satisfy requirements for elementary education at Minnesota State University - Mankato:

- Communication Skills I and II OR
- Communication Skills I and Public Speaking 6-8 s.h.
- Humanities (chosen from two of the following areas: Literature, Music, Theater) 9 s.h.
- Two-Dimensional Design I 3 s.h.
- Drugs and Alcohol 3 s.h.
- Children's Literature 3 s.h.
- Social Studies (any social studies listed in the catalog from at least three disciplines) 9 s.h.
- Biological Principles 4 s.h.
- Mathematics for Decision Making OR
- Mathematics for Elementary Teachers 3 s.h.
- General Psychology 3 s.h.
- Principles of Physics 4 s.h.
- Introduction to Philosophy 3 s.h.
- Regional Geography of the Developed World 3 s.h.
- American History 3 s.h.

Additional hours may be selected in major areas of concentration.

A 2.5 overall GPA is required for admission to professional education.

The Preprofessional Skills Test (PPST) must be completed and on file at MSU before a student is allowed to take a professional education course. If the test is not completed and on file, a student will not be able to complete the elementary education degree in two years.

Simpson College

Courses which may be taken at North Iowa Area Community College to complete major requirements at Simpson College.

EDUCATION

- Intro to Teaching 3 s.h.
- Children's Literature 3 s.h.
- Human Growth and Development 3 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; ACT English, math, and composite scores; experience; references; and a personal statement.

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 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.

SECONDARY EDUCATION

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.

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)
- Child Psychology (recommended, 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.
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.
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 I and II	4 s.h.
Engineering Problems	1 s.h.
Statics of Engineering	3 s.h.
Fortran	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.

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.
Calculus	12 s.h.
Engineering Graphics I and II	4 s.h.
Statics of Engineering	3 s.h.
Chemistry Principles OR General Chemistry I	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 Microeconomics	3 s.h.

University of Iowa

The following Engineering curricula are offered at the University of Iowa:

- Biomedical Engineering
- Chemical and Biochemical Engineering
- Civil and Environmental Engineering
- Electrical and Computer 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.
Calculus	8 s.h.
Differential Equations	3 s.h.
Chemistry Principles	5 s.h.
College Physics	10 s.h.
Orientation to Engineering	0 s.h.
Engineering Graphics I and II	4 s.h.
Engineering Problems	1 s.h.
Social Sciences/Humanities	9 s.h.
Statics of Engineering	3 s.h.
Fortran	3 s.h.

Students transferring directly to the College of Engineering need to have completed at least one semester of Chemistry Principles with a C or higher and one semester of calculus with a B or higher. Transfer students need a minimum of 2.75 to be considered for admission.

Environmental Science & Policy**Drake University**

An interdisciplinary program, this 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:

Communication Skills I and II	8 s.h.
Mathematics	3 s.h.
Western Civilization I and II	6 s.h.
American Social System	6 s.h.
Western Arts and Humanities	6 s.h.
Global Perspective	6 s.h.
Scientific Perspective	8 s.h.

For specific general education requirements, prospective students in this major should follow the College of Arts and Sciences transfer plan in the Drake University Articulation Agreement: a course equivalency guide and transfer plans, available at the counseling office or by contacting the Drake Office of Admission. For more information about other applicable NIACC courses, contact the Office of Admissions at Drake University.

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.

Home Economics

University of Northern Iowa

INTERIOR DESIGN

Introduction to Computers	3 s.h.
Macroeconomics	3 s.h.
Accounting Principles I	3 s.h.

DIETETICS

Accounting Principles I	3 s.h.
Microbiology	4 s.h.
General Chemistry I & II	10 s.h.
Organic Chemistry I & II	10 s.h.

(70:274 & 70:275)

TEXTILES and APPAREL

Macroeconomics	3 s.h.
Accounting Principles I	3 s.h.
Marketing - Elective	3 s.h.
Intro to Computers	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 meet requirements for a business minor.

Accounting Principles I	3 s.h.
Business Law I	3 s.h.
Principles of Management	3 s.h.
Business Statistics	3 s.h.
Marketing	3 s.h.
Quantitative Methods	3 s.h.
Macroeconomics	3 s.h.
Microeconomics	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

Iowa State University /
University of Northern Iowa

NIACC's Electronics Technology (page 102) and Mechanical Design Technology (page 109) are articulated with Iowa State University's Department of Industrial Education and Technology and the University of Northern Iowa's Department of Industrial Technology. The programs, with appropriate option, meet requirements for a bachelor of science degree in Industrial Technology with Manufacturing option at ISU and 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 of applied science degree in Electronics Technology or Mechanical Design Technology while maintaining the option of transferring to Iowa State University after completing the NIACC program.

While enrolled in the Electronics Technology or Mechanical Design Technology Programs, the following course options may be taken to maximize transfer effectiveness.

ELECTRONICS TECHNOLOGY

ISU - Industrial Technology - Manufacturing Option

UNI - Electromechanical 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 Instrumentation Technology
92:227 Automated Manufacturing Processes
89:150 Job-Seeking Skills
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

* Listed in Articulation (p. xx)

MECHANICAL DESIGN TECHNOLOGY

ISU - Industrial Technology - Manufacturing Option

UNI -1. General Industry and Technology 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 Job-Seeking Skills
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

* Listed in Articulation (p. xx)

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 Technology)

Accounting Principles I	3 s.h.
Intro to Computers	3 s.h.
General Physics I	4 s.h.
General Physics II	4 s.h.
Quantitative Methods	3 s.h.
Calculus for Business.	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.

GENERAL INDUSTRY and TECHNOLOGY
(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)

Calculus I	8 s.h.
General Physics I AND College Physics I	8-10 s.h.
Fortran	3 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

Upper Iowa University

IST Major Courses	35-36 s.h.
Communication Skills I, II	8 s.h.
Ethics	3 s.h.
Macroeconomics	3 s.h.
Microeconomics	3 s.h.
Introduction to MIS	3 s.h.
Introduction to Statistics	3 s.h.

*Discussions are currently underway 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-Editorial, 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.
Language/Comm Skills * (from two areas)	9 s.h.
American Government	3 s.h.
Macro or Microeconomics	3 s.h.
Sociology	3 s.h.
Social Science Electives *	6 s.h.
Natural Sciences & Mathematics * (from two areas, including one lab)	12 s.h.
Humanities * (from two areas)	12 s.h.
Introduction to Journalism	3 s.h.
News Writing and Reporting	3 s.h.

* For specific general education requirements, prospective Journalism students should consult the School of Journalism & Mass Communication transfer plan in the Drake University Articulation Agreement: a course equivalency guide and transfer plans, available at the counseling office or by contacting the Drake Office of Admission.

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 Newswriting and Reporting (3 s.h.) should be considered.

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. Drake offers a pre-law program of study which is adaptable to the requirements of any designated major, as well as a new interdisciplinary major in Law, Politics & Society.

In conjunction with the appropriate Drake Transfer Planning Guide, prospective students may include the following courses in their North Iowa Area Community College program of study:

- Communication Skills I & II 8 s.h.
- Speech 2 s.h.
- College Algebra OR Analytic Geometry and
- Calculus I 4 s.h.
- Foreign Language 0-16 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 4 s.h.

For specific general education requirements, prospective students should consult the transfer plan appropriate to the desired major in any college or school in the Drake University Articulation Agreement: a course equivalency guide and transfer plans, available at the counseling office or by contacting the Drake University Office of Admission.

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.

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 PreCalc	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:

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

Drake University

R.N. TO M.S.N. PROGRAM

Students interested in this program should contact the Drake Department of Nursing or the Office of Graduate Admissions at Drake University for more information. Tracks in the M.S.N. program include Nurse Educator, Family Nurse Practitioner, and Health Systems Management.

University of Iowa**BACHELOR OF SCIENCE IN NURSING (B.S.N.) 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 pre-nursing.

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 (B.S.N.) DEGREE**R.N. TO B.S.N. PROGRESSION PROGRAM**
(at North Iowa Area Community College)

The University of Iowa College of Nursing offers its NLN-accredited R.N.-B.S.N. Progression Program at several distant sites in Iowa, including NIACC. All course work can be completed locally. This program is designed for Iowa licensed, diploma and associate degree registered nurses who desire a B.S.N. 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, and communication 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 B.S.N. upon graduation from the NIACC A.D.N. Program.

Most students may enroll in supporting and general education courses at NIACC and are strongly encouraged to seek early advising with the R.N.-B.S.N. Faculty Facilitator. For further information contact the R.N.-B.S.N. Program office in Iowa City at 1-800-553-4692, ext. 7020, or the R.N.-B.S.N. Faculty Facilitator located on the NIACC campus at 1(888)466-4222, ext. 4338.

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.

—Students must achieve and maintain a minimum 2.5 GPA.

—Students should apply for admission to St. Ambrose as soon as they begin their third semester at NIACC.

—As soon as students are enrolled at St. Ambrose, they should apply for Occupational Therapy.

—Students must be able to document experience in an occupational therapy setting of at least 20 clock hours.

—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.
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 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 2.50 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. 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. 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 for the fall 1999 term will begin in the fall of 1998; notification of admission will begin February 1 and continue until all seats have been filled. Please contact a Drake admission counselor for more detailed information.

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. Admission to the professional Pharm.D. program in the spring term is not available.

The Drake College of Pharmacy and Health Sciences suggests the following curriculum at NIACC.

Communication Skills I & II	8 s.h.
Chemistry Principles I & II	10 s.h.
Biological Principles I & II	8 s.h.
Microbiology	4 s.h.
Calculus I	4 s.h.
Statistics	3 s.h.
Organic Chemistry I & II	10 s.h.
Intro to Computers	3 s.h.
Social Sciences Electives	9 s.h.
Humanities Electives	9 s.h.

For specific general education requirements, prospective pharmacy students should consult the College of Pharmacy and Health Sciences transfer plan in the Drake University Articulation Agreement: a course equivalency guide and transfer plans, available at the counseling office or by contacting the Drake Office of Admission.

University of Iowa

A student may attend North Iowa Area Community College for a year of pre-pharmacy.

Courses which should be taken at North Iowa Area Community College are:

First Year:

Biology I and II	8 s.h.
Communication Skills I and II	8 s.h.
Chemistry Principles I and II	10 s.h.
Calculus I	4 s.h.
*General Physics	8 s.h.
**General Education Electives	6 s.h.

*Physics required for students who haven't taken a full year during high school.

**A minimum of 6 s.h. of general education electives required for admission. Total of 20 s.h. required for graduation.

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 (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.
Basic Athletic Training	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.

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.

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/Criminal Justice

Buena Vista University

Courses which may be taken at North Iowa Area Community College to meet specific major requirements at Buena Vista College:

Intro to American Government	3 s.h.
Criminal Evidence (as support work)	3 s.h.
Administration of Justice (as support work)	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.

Psychology

Quantitative Methods or Algebra and Trigonometry I	3-4 s.h.
General Psychology	3 s.h.
Educational Psychology	3 s.h.
Child Psychology	3 s.h.
Human Growth and Development	3 s.h.
Communication Skills I and II	8 s.h.
Humanities Electives	6 s.h.
Sociology	3 s.h.
Marriage and Family.	3 s.h.
Biological Principles	4 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.
Human Growth & Development	3 s.h.
Child Psychology (as an elective)	3 s.h.
Educational Psychology (as an elective)	3 s.h.
Interm Algebra	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 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 NIACC 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

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.

Students planning for this major should include the following NIACC course work.

Communication Skills I and II	8 s.h.
Mathematics	3 s.h.
Western Civilization I and II	6 s.h.
American Social System	6 s.h.
Western Arts and Humanities	6 s.h.
Global Perspective	6 s.h.
Scientific Perspective	8 s.h.

For specific general education requirements, prospective Rehabilitation Services students should follow the College of Arts and Sciences transfer plan in the Drake University Articulation Agreement: a course equivalency guide and transfer plans, available at the counseling office or by contacting the Drake Office of Admission. For more information about other applicable NIACC courses, contact the Office of Admission at Drake University.

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	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 nonprofit agencies such as YWCA/YMCA's. This program is administered through the Department of Health and Human Performance. (See course recommendations under Physical Education.)

Sports Science

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 Chemistry I and II	6 s.h.
Nutrition	3 s.h.
Anatomy and Physiology I	3 s.h.
Kinesiology	3 s.h.
General Physics	4 s.h.
Organic Chemistry I	5 s.h.
Intro to Statistics	3 s.h.

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

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 North Central Association of Colleges and Universities 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.
- * 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	4 s.h.
10:103	Art History II	4 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	Two-Dimensional Design	3 s.h.
10:202	Computer-Aided Graphic Design	3 s.h.
10:210	Painting I	3 s.h.
10:211	Painting II	3 s.h.
10:220	Computer-Aided Images	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.
30:205	Creative Writing	3 s.h.
30:210	Children's Literature	3 s.h.
35:101	Beginning French I	4 s.h.
35:102	Beginning French II	4 s.h.
35:110	Beginning Spanish I	4 s.h.
35:111	Beginning Spanish II	4 s.h.
35:120	Beginning German I	4 s.h.
35:121	Beginning German II	4 s.h.
35:201	Intermediate French I	4 s.h.
35:202	Intermediate French II	4 s.h.
35:211	Intermediate Spanish I	4 s.h.
35:212	Intermediate Spanish II	4 s.h.
35:220	Intermediate German I	4 s.h.
35:221	Intermediate German 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:	Applied Music-Piano	1-2 s.h.
50:	Applied Music-Voice	1-2 s.h.
50:	Applied Music-Instrumental	1-2 s.h.
50:	Beginning Piano	1 s.h.
50:133	Concert Chorus	1 s.h.
50:134	Concert Chorus	1 s.h.
50:233	Concert Chorus	1 s.h.
50:234	Concert Chorus	1 s.h.
50:135	Band	1 s.h.
50:136	Band	1 s.h.
50:235	Band	1 s.h.
50:236	Band	1 s.h.
50:141	Jazz Band	1 s.h.
50:142	Jazz Band	1 s.h.
50:241	Jazz Band	1 s.h.
50:242	Jazz Band	1 s.h.
50:145	Pep Band	½ s.h.
50:146	Pep Band	½ s.h.
50:245	Pep Band	½ s.h.
50:246	Pep Band	½ s.h.
50:137	Orchestra	1 s.h.
50:138	Orchestra	1 s.h.
50:237	Orchestra	1 s.h.
50:238	Orchestra	1 s.h.
50:	Chamber Ensemble	½ s.h.
50:143	Voice Ensemble (NIACC Singers)	1 s.h.
50:144	Voice Ensemble (NIACC Singers)	1 s.h.
50:243	Voice Ensemble (NIACC Singers)	1 s.h.
50:244	Voice Ensemble (NIACC Singers)	1 s.h.
80:140	American History to 1877	3 s.h.
80:141	American History 1877 to Present	3 s.h.
80:160	Cultural Anthropology	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 Theater, TV, and Film	3 s.h.
85:160	Stagecraft	3 s.h.
85:170	Intro to Acting	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.
40:170	Fortran	3 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.
70:112	Animal Science	3 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.
70:212	Animal Science	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 Geography	3 s.h.
80:151	Regional Geography of the Developed World	3 s.h.
80:152	Regional Geography of the NonWestern 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.	15:299C Special Problems in Business.....	3 s.h.
15:121 Business Law II.....	3 s.h.	ELECTIVES	
15:122 Legal Office Procedures.....	5 s.h.	10:112 Art in the Elementary School.....	3 s.h.
15:134 Computer Applications.....	3 s.h.	20:101 Intro to Teaching.....	3 s.h.
15:140 Intro to Computers and Information Systems.....	3 s.h.	20:110 Educational Measurement and Eval.....	2 s.h.
15:141 Intro to MIS.....	3 s.h.	20:120 Mainstreaming the Exceptional Student.....	2 s.h.
15:142 Principles of Management.....	3 s.h.	20:195 Ed Media & Classroom Comp Tech.....	3 s.h.
15:144 Principles of Supervision.....	3 s.h.	25:101 Engineering Graphics I.....	2 s.h.
15:146 Contemporary Supervision.....	3 s.h.	25:102 Engineering Graphics II.....	2 s.h.
15:149 Managing Human Resources.....	3 s.h.	25:110 Orientation to Engineering.....	0 s.h.
15:150 Accounting Principles I.....	3 s.h.	25:120 Engineering Problems.....	1 s.h.
15:151 Accounting Principles II.....	3 s.h.	25:231 Statics of Engineering.....	3 s.h.
15:155 Payroll Accounting.....	3 s.h.	30:113 LOGOS.....	1 s.h.
15:156 Networking I.....	3 s.h.	30:120 College Reading Skills.....	3 s.h.
15:157 Networking II.....	4 s.h.	40:120 Intermediate Algebra.....	3 s.h.
15:158 Networking III.....	4 s.h.	50:120 Intro Music Theory.....	2 s.h.
15:159 Networking IV.....	3 s.h.	60:112 Scuba.....	1 s.h.
15:161 Introduction to Operating Systems.....	3 s.h.	60:113 Physical Fitness.....	1 s.h.
15:160 Computer Accounting.....	3 s.h.	60:114 Physical Fitness Lab.....	1 s.h.
15:162 Network Operating Systems.....	4 s.h.	60:115 Games and Officiating I.....	2 s.h.
15:163 Network Operating Systems II.....	4 s.h.	60:116 Games and Officiating II.....	2 s.h.
15:164 Groupware Applications.....	4 s.h.	60:117 Intro to Physical Education.....	2 s.h.
15:165 Groupware Applications II.....	4 s.h.	60:118 Care and Prevention of Athletic Injuries.....	2 s.h.
15:166 Inter/Intranet Application Management.....	4 s.h.	60:120 Baseball (Intercollegiate).....	1 s.h.
15:167 Network Security.....	3 s.h.	60:220 Baseball (Intercollegiate).....	1 s.h.
15:168 Introduction to Programming.....	4 s.h.	60:121 Basketball (Intercollegiate).....	1 s.h.
15:169 Media Experience.....	3 s.h.	60:221 Basketball (Intercollegiate).....	1 s.h.
15:170 Principles of Banking.....	3 s.h.	60:122 Football (Intercollegiate).....	1 s.h.
15:171 Introduction to Entrepreneurship.....	3 s.h.	60:222 Football (Intercollegiate).....	1 s.h.
15:172 Managing the Entrepreneurial Venture.....	3 s.h.	60:123 Golf (Intercollegiate).....	1 s.h.
15:173 Seminar in Entrepreneurship.....	3 s.h.	60:223 Golf (Intercollegiate).....	1 s.h.
15:174 Data Base Management.....	3 s.h.	60:127 Softball (Intercollegiate).....	1 s.h.
15:175 Electronic Spreadsheets.....	3 s.h.	60:227 Softball (Intercollegiate).....	1 s.h.
15:176 Advanced Desktop Applications.....	3 s.h.	60:128 Volleyball (Intercollegiate).....	1 s.h.
15:177 Advanced Operating Systems.....	4 s.h.	60:228 Volleyball (Intercollegiate).....	1 s.h.
15:178 Hardware Service and Support.....	4 s.h.	60:141 Cross-Country Skiing.....	½ s.h.
15:190 General Insurance.....	3 s.h.	60:142 Intro to Boating, Camping, Fishing.....	½ s.h.
15:195 Property/Casualty Insurance.....	3 s.h.	60:150 Theory of Coaching Interscholastic Athletics.....	1 s.h.
15:200 Life, Health & Disability Insurance.....	3 s.h.	60:152 Intro to Anatomy and Physiology for Coaching.....	1 s.h.
15:205 Financial Planning/Employee Benefits.....	3 s.h.	60:153 Human Development in Sports.....	1 s.h.
15:207 Real Estate Prelicense.....	3 s.h.	60:232 First Aid and Personal Safety.....	1 s.h.
15:210 Business Statistics.....	3 s.h.	80:125 Student Senate.....	1 s.h.
15:211 Word Processing.....	2 s.h.	80:126 Student Senate.....	1 s.h.
15:212 Business Communication.....	3 s.h.	80:225 Student Senate.....	1 s.h.
15:217 Professional Office Procedures.....	5 s.h.	80:226 Student Senate.....	1 s.h.
15:221 Marketing.....	3 s.h.	80:114 Intro to Human Services.....	3 s.h.
15:222 Principles of Advertising.....	3 s.h.	80:144 Native American History: Prehistory to Mid - 20th.....	3 s.h.
15:223 Principles of Selling.....	3 s.h.	80:190 Criminal Law I.....	3 s.h.
15:230 Money and Banking.....	3 s.h.	80:191 Criminal Law II.....	3 s.h.
15:241 Human Relations.....	3 s.h.	80:192 Patrol Procedures.....	3 s.h.
15:250 Basic Medical Insurance & Coding.....	2 s.h.	80:290 Criminal Evidence.....	3 s.h.
15:251 Medical Terminology I.....	3 s.h.	80:291 Administration of Justice.....	3 s.h.
15:252 Medical Terminology II.....	3 s.h.	80:292 Criminal Investigation.....	3 s.h.
15:255 Medical Transcription I.....	3 s.h.	85:103 Radio Speaking.....	1 s.h.
15:256 Medical Transcription II.....	3 s.h.	85:104 Voice and Diction.....	2 s.h.
15:259 Medical Office Procedures.....	3 s.h.		
15:280 On-the-Job Training.....	3 s.h.		
15:281 On-the-Job Training.....	3 s.h.		
15:299A Special Problems in Business.....	1 s.h.		
15:299B Special Problems in Business.....	2 s.h.		

89:100	Cooperative Work Experience	1-5 s.h.
89:101	Cooperative Work Experience	1-5 s.h.
89:102	Cooperative Work Experience	1-5 s.h.
89:103	Cooperative Work Experience	1-5 s.h.
89:104	Cooperative Work Experience	1-5 s.h.
89:105	Cooperative Work Experience	1-5 s.h.
89:120	Individualized Educational Planning and Assessment.....	1 s.h.
89:150	Job-Seeking Skills	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.
89:166	Nurse Aide II.....	3 s.h.
89:170	First Responder.....	2 s.h.
89:189	Emergency Medical Technician Intermediate Theory	4 s.h.
89:190	Emergency Medical Technician Intermediate Clinical/Field.....	3 s.h.
89:191	Emergency Medical Technician Paramedic Part I.....	8 s.h.
89:192	Emergency Medical Technician Paramedic Part II.....	5 s.h.
89:193	Emergency Medical Technician Paramedic Part III.....	5 s.h.
89:194	Emergency Medical Technician Paramedic Part IV	5 s.h.
89:195	Emergency Medical Technician Basic Part I.....	4 s.h.
89:196	Emergency Medical Technician Basic Part II.....	2 s.h.

All special problems courses, unless otherwise indicated, are elective courses.

Quotable Quote:

Lots of people want to ride with you in the limo, but what you want is someone who will take the bus with you when the limo breaks down.

-Oprah Winfrey

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, and Nurse Aide**

* **Special Problems credit cannot 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.

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 History of Art I (4 s.h.)The study of the development of the vis-

ual arts of western civilization including painting, sculpture, architecture, and crafts from prehistoric origins through Gothic. (60-0)

10:103 History of Art II (4 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. (60-0)

10:112 Art in the Elementary School (3 s.h.)Prerequisite: 10:101, Essentials of Art, or permission of instructor to remove prerequisite. Recommended for elementary education majors. Designed for elementary education majors or for those interested in working with children. Artistic development of children, art instructional planning, art studio and response activities, and a "hands-on" teaching experience are incorporated, as well as multicultural and interdisciplinary approaches and art for children with special needs. (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 vis-

ual 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.)Student/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 Computer-Aided 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 Computer-Aided Images (3 s.h.) Prerequisite: 10:150, Creative Photography, or 10:202, Computer-Aided 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. (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 wpm (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, produc-

ing, and proofreading documents: memos, letters, envelopes, tables and reports. (30-30)

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

Open Entry/Open Exit

15:110 Electronic Calculators (1 s.h.) [Open Entry/Open Exit] A study of the ten-key, electronic calculator. Applied business problems on the calculator. (15-15)

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. (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. (0-30)

15:114 Computer Literacy (1 s.h.) [Open Entry/Open Exit] Prerequisite: None. 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, and presentation 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. (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: 15:109 Introduction to Accounting or 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, composing letters, 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 electronic spreadsheets, word processing software, and data base management software. (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, data base management software, and presentation software. Students also are exposed to some programming and web page development. (45-0)

15:141 Introduction to Management Information Systems (3 s.h.)

Prerequisite: 15:140, Introduction to Computers and Information Systems, or permission of the Instructor. The primary goal of Introduction to MIS 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. (30-30)

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

Prerequisite: 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, direct-

ing, and controlling) and is augmented by other pervasive areas of supervision such as communication, motivation, decision making, and human relations. (45-0)

15:146 Contemporary Supervision (3 s.h.)

Prerequisite/Corequisite: 15:144, Principles of Supervision. An understanding of management functions involved with being a supervisor. Enhancement of the understanding of supervisory roles. (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 unem-

ployment taxes; completion of quarterly and annual reports and a payroll simulation project. (45-0)

15:156 Networking I (3 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. (45-0)

15:157 Networking II (4 s.h.)

Prerequisite: 15:156, Networking I. 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. (30-30)

15:158 Networking III (4 s.h.)

Prerequisite: 15:157, Networking II. A continuation of Networking II. Addresses such topics as advanced router configurations, LAN switching, networking management, and advanced network design. (30-30)

15:159 Networking IV (3 s.h.)

Prerequisite: 15:158, Networking III. A continuation of Networking III. Using primarily hands-on, project-based learning, this course includes advanced network design projects and advanced network management projects. (30-30)

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 Introduction to Operating Systems (3 s.h.)

This course intro-

duces students to the use of such popular operating systems as Microsoft DOS, Windows 95, Windows 98, Windows NT Workstation, UNIX, and Apple Macintosh. This course also addresses operating system interface and controls; file system management; application management; and network client configuration. (30-15)

15:162 Network Operating Systems I (4 s.h.) Prerequisite: 15:161, Introduction to Operating Systems. 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. (30-30)

15:163 Network Operating Systems II (4 s.h.) Prerequisite: 15:162, Network Operating Systems I. This course is a continuation of Network Operating Systems I that goes into greater detail on such topics as network operating system design and installation; basic, user, peripheral, and application configurations; security issues; workstation and client setup; system management; and WAN/LAN issues. (30-30)

15:164 Groupware Applications I (4 s.h.) This course provides an introduction to such applications as electronic mail, shared calendars, document sharing, bulletin boards, voice and video conferencing, 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 social issues related to groupware applications. (30-30)

15:165 Groupware Applications II (4 s.h.) Prerequisite: 15:164, Groupware Applications I. This course builds on the Groupware Applications I. The course covers

such topics as the advantages and disadvantages of a groupware application, installation requirements, initial configuration, interfacing applications, advanced use of applications, and troubleshooting. (30-30)

15:166 Inter/Intranet Application Management (4 s.h.) Prerequisite: 15:162, Network Operating Systems I, and 15:161, Introduction to Operating Systems, or permission of the instructor. This course enables students to design, set up, configure, and manage such Inter/Intranet services as the World Wide Web, electronic mail, domain name service, file transfer protocol; to gain knowledge of such merging applications as streaming audio and video and Internet phone; and to gain insight into the management of these services. (30-30)

15:167 Network Security (3 s.h.) Prerequisite: 15:156, Networking I, and 15:161, Introduction to Operating Systems, 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. (30-15)

15:168 Introduction to Programming (4 s.h.) 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. (30-30)

15:169 Media Experience (3 s.h.) Prerequisite: 15:140, Introduction to Computers. This course provides exposure to the development and publication of different forms of communication, including such topics as the World Wide Web, hypertext markup language (HTML), file types, Java, browser helper applications, streaming audio and video, nonlinear audio and

video, and creating web pages. (30-15)

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.) Prerequisite: 15:101, Introduction to Business, and 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.) Course will combine group lecture/discussions with an actual case project with a local entrepreneurial firm. Students will have an opportunity to apply business skills learned throughout their NIACC program in local entrepreneurial firms. (45-0)

15:174 Data Base Management (3 s.h.) Prerequisite/Corequisite: 15:140, Introduction to Computers and Information Systems. The course consists of a study of data

base theory and systems development. Actual use of data bases and development of simple information systems; making use of a popular relational data base will also be done. (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, data bases, 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 Advanced Operating Systems (4 sh.) Prerequisite: 15:140, Introduction to Computers and Information Systems, and 15:161, Introduction to Operating Systems. This course is a continuation of Introduction to Operating Systems. Students will address advanced topics of operating systems such as Microsoft DOS, Windows '95, Windows '98, Windows NT Workstation, UNIX, and Apple Macintosh. Topics will include installation, troubleshooting, registry, batch files, configuration, network and Internet features, and utilities. (30-30)

15:178 Hardware Service and Support (4 sh.) Prerequisite: 15:140, Introduction to Computers and Information Systems, 15:161, Introduction to Operating Systems, or permission of instructor. This course prepares the student to properly install, configure, up-

grade, 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. (30-30)

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)

15:195 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)

15:200 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)

15:205 Financial Planning and Employee Benefits (3 s.h.) Prerequisite/Corequisite: 15:190, General Insurance. Instruction will be provided in estate planning, pension planning, annuities, personal and business needs, and other forms of securities. (45-0)

15:207 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. (15-30)

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, interoffice memorandums, and informal business reports. A secondary emphasis will be placed on oral communication, listening skills, and nonverbal communication.

15:217 Professional Office Procedures (5 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, composing letters, 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)

15:221 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)

15:230 Money and Banking (3 s.h.) Prerequisite: 80:133, Macroeconomics. 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.) Problems of defining the wants of the worker and of management and bringing these elements together in formal and informal organizations; implementing programs to help them achieve their common purpose to work together productively and cooperatively and with economic, psychological, and social satisfaction. (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)

15:252 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)

15:255 Medical Transcription I (3 s.h.) Prerequisite: 15:251, Medical Terminology; 15:107, Keyboarding for Office Technology; recommended (not required) corequisite: 70:250, Anatomy and Physiology. This course is designed to introduce students to transcription in the medical field. The students will progress from basic through intermediate levels of medical transcription projects. The students will also be introduced to issues of confidentiality and the use of medical reference books. (15-60)

15:256 Medical Transcription II (3 s.h.) Prerequisite 15:255, Medical Transcription; 15:251 and 15:252, Medical Terminology I and II; sug-

gested corequisite 70:250, Anatomy and Physiology I. This course is designed to introduce students to advanced medical transcription including reports dictated with foreign accents and other real-life situations. The students will apply problem-solving techniques to accurately transcribe 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, 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. (60-30)

15:281 On-the-Job Training (3 s.h.) A continuation of 15:280. (15-150)

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. (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. (30-15)

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 Mainstreaming the Exceptional Student (2 s.h.) Prerequisite: 20:110, Educational Measurement and Evaluation; and 80:230, Human Growth and Development. An introductory discussion of issues and practices used in mainstreaming or including exceptional students in regular school settings. Topics include: rationales for and against inclusion; approaches for addressing the needs of all students, including the gifted; adaptive strategies for curriculum and classroom; and approaches to supporting unique educational programs. (30-0)

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

25:101 Engineering Graphics I (2 s.h.) Prerequisite: High school algebra and geometry or their equivalent. (Industrial Education Drawing is suggested.) The use and manipulation of drawing instruments; freehand lettering, sketching, orthographic projection of points, lines, planes and solids; geometry of points, lines, and planes; sections and conventional practices; basic dimensioning; iso-

metric and oblique pictorials; computer-aided drafting and design; and a creative design project. (20-70)

25:102 Engineering Graphics II (2 s.h.) Prerequisite: 25:101, Engineering Graphics, or consent of instructor. Fundamentals of AutoCAD 2-D and Unigraphics solid modeling. Layers, icons, pull-down menus, drawing and editing commands, object snaps, text, sketch, dimensioning, basic construction of 2-D mechanical drawings, creating lines, arcs and circle, blends, trimming, extruding, instance array, blends, fillets and chamfers, holes, slot, and threads. (35-70)

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.) (10-8)

25:120 Engineering Problems (1 s.h.) Prerequisite or corequisite: 40:151, College Algebra and Trigonometry I; or 40:161, Precalculus. Development of skills, standards, and orderly methods of solving problems involving computations of an engineering nature. Metric measurement, calculations with approximate numbers, graphing of technical data, logarithms, and trigonometric functions. Investigation and use of calculators and computers. (Class meets two hours per week.) (15-15)

25:231 Statics of Engineering (3 s.h.) Prerequisite or corequisite: 40:253, Analytic Geometry and Calculus III; 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)

30 English

30:051 Developmental Reading (1 s.h.) Prerequisite: registration in 30:095, Basic Reading. For the first hour of a passing grade credit or "T" credit, a student must be able to read on the sixth grade level, complete textbook assignments, complete tests on textbook material with at least 60 percent accuracy, do acceptable work in other class assignments, and meet attendance standards. Students will be allowed to register for Developmental Reading upon referral from a Basic Reading instructor. This course may not be used to satisfy core requirements. (15-0)

30:052 Developmental Reading (1 s.h.) Prerequisite: registration in 30:095, Basic Reading. For the second hour of a "T" credit, a student must be able to read on the seventh grade level, complete textbook assignments, complete tests on textbook material with at least 70 percent accuracy, do acceptable work in other class assignments, and meet attendance standards. Students will be allowed to register for Developmental Reading upon referral from a Basic Reading instructor. This course may not be used to satisfy core requirements. (15-0)

30:053 Developmental Reading (1 s.h.) Prerequisite: registration in Basic Reading, 30:095. For the third hour of a "T" credit, a student must be able to read on the eighth grade level, complete textbook assignments, complete tests on textbook material with at least 80 percent accuracy, do acceptable work in other class assignments, and meet attendance standards. Students will be allowed to register for Developmental Reading upon referral from a Basic Reading instructor. This course may not be used to satisfy core requirements. (15-0)

30:054 Developmental Reading (1 s.h.) Prerequisite: registration in Basic Reading, 30:095. For the fourth hour of a "T" credit, a student must

be able to read on the ninth grade level, complete textbook assignments, complete tests on textbook material with at least 90 percent accuracy, do acceptable work in other class assignments, and meet attendance standards. Students will be allowed to register for Developmental Reading upon referral from a Basic Reading instructor. This course may not be used to satisfy core requirements. (15-0)

30:090 Basic Writing (4 s.h.) 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 the A.A., A.S., A.S.B., or A.A.S. degrees and will not be used in calculating the cumulative grade point average for graduation. (60-0)

30:091 Developmental Writing (1 s.h.) Prerequisite: registration in 30:090, Basic Writing. For the first hour of a "T" credit, a student must complete and revise the required writing assignments, complete textbook assignments, do acceptable work in other class assignments, and meet attendance standards. Students will be allowed to register for Developmental Writing upon referral from a Basic Writing instructor. This course may not be used to satisfy core requirements. (15-0)

30:092 Developmental Writing (1 s.h.) Prerequisite: registration in 30:090, Basic Writing. For the second hour of "T" grade credit, a student must complete and revise the required writing assignments, complete textbook assignments, do acceptable work in other class assignments, and meet attendance standards. Students will be allowed to register for Developmental Writing upon referral from a Basic Writing instructor. This course may not be used to satisfy core requirements.

(15-0)

30:093 Developmental Writing (1 s.h.) Prerequisite: registration in 30:090, Basic Writing. For the third hour of "T" credit, a student must complete and revise the required writing assignments, complete textbook assignments, do acceptable work in other class assignments, and meet attendance standards. Students will be allowed to register for Developmental Writing upon referral from a Basic Writing instructor. This course may not be used to satisfy core requirements. (15-0)

30:094 Developmental Writing (1 s.h.) Prerequisite: registration in 30:090, Basic Writing. For the fourth hour of "T" credit, a student must complete and revise the required writing assignments, complete textbook assignments, do acceptable work in other class assignments, and meet attendance standards. Students must develop one paragraph of at least 100 words on a single topic. The paragraph should be written in complete sentences and have fewer than three errors in mechanics and grammar. Students will be allowed to register for Developmental Writing upon referral from a Basic Writing instructor. This course may not be used to satisfy core requirements. (15-0)

30:095 Basic Reading (4 s.h.) 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 the A.A., A.S., A.S.B., or A.A.S. degrees and will not be used in calculating the cumulative grade point average for graduation. (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 must meet minimum competency

requirements in writing and speaking to receive a grade of C or higher. Students may use word processors and the computer editing system, Writer's Workbench. (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 must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

30:102 Communication Skills II (4 s.h.) A continuation of 30:101 with an emphasis on argumentative and persuasive writing and speaking, research methods, and language. Students must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (60-0)

30:102C Communication Skills II (3 s.h.) A continuation of 30:101 with emphasis on argumentative and persuasive writing and speaking, research methods, and language. Students must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

30:110 Oral Interpretation of Literature (3 s.h.) 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 se-

lected 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)

30:114 LOGOS (1 s.h.) Same as 30:113. (0-30)

30:115 LOGOS (1 s.h.) Same as 30:113. (0-30)

30:116 LOGOS (1 s.h.) Same as 30:113. (0-30)

30:120 College Reading Skills (3 s.h.) Instruction and practice in improving speed and comprehension, in budgeting time for reading, in developing ability to concentrate, in building vocabulary, in adjusting the rate and kind of reading to the purpose and the content, and in previewing content to be studied. (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 from the great books of the Western world. Prose, poetry, and drama from the Bible and classical times to mid-18th century. May be taken without World Literature 202. (45-0)

30:202 World Literature II (3 s.h.) Readings from the great books of Western, Oriental, and African literature. Prose and drama from mid-18th century to the present. May be taken without World Literature 201. (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 Americans 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: Native American (3 s.h.) Prerequisite: Communication Skills I. A study of the writings of major Native Americans 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.) A study of Children's Literature from its beginning to contemporary literature by genre. An emphasis on teaching literature in the classroom will be a major component of the course. (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 of Academic Affairs, credit may be given upon satisfactory completion of the project. (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

35:101 Beginning French I (4 s.h.) Drill in elementary grammar, idioms, and vocabulary essential for a practical command of the language as well as pronunciation with emphasis on conversation and diction. Reading of easy French texts to provide the background for an appreciation of French culture. (45-30)

35:102 Beginning French II (4 s.h.) Prerequisite: 35:101, one year of high school French, or equivalent. A continuation of 35:101. (45-30)

35:110 Beginning Spanish I (4 s.h.) basic multimedia program for the beginner. Acquaints student with pronunciation, elementary grammatical concepts, and basic vocabulary. Ex-

posure to the language through text, workbook, accompanying tapes and cassettes, oral instruction, and classroom drill. Regular attendance mandatory for good results. (45-30)

35:111 Beginning Spanish II (4 s.h.)

Prerequisite: Beginning Spanish I (35:110) or by pretest. Student continues study of basic grammatical structures, acquisition of working vocabulary, assimilation of skills in using this knowledge, and begins to achieve limited fluency within this framework. Regular attendance mandatory for good results. (45-30)

35:120 Beginning German I (4 s.h.)

Drill in elementary grammar, idioms, and vocabulary essential for a practical command of the language as well as in pronunciation, with emphasis on conversation and diction. Reading of easy German texts to provide the background for an appreciation of German culture. (45-30)

35:121 Beginning German II (4 s.h.)

Prerequisite: 35:120, one year of high school German, or equivalent. A continuation of 35:120. (45-30)

35:201 Intermediate French I (4 s.h.)

Prerequisite: 35:102, two years of high school French, or equivalent. Continued drill with the grammar, idioms, and vocabulary necessary to give the student a practical working knowledge of both the spoken and written language. Continued reading of texts to provide the student with an appreciation of French culture. (45-30)

35:202 Intermediate French II (4 s.h.) Prerequisite: 35:201, three years of high school French, or equivalent. A continuation of 35:201. (45-30)

35:211 Intermediate Spanish I (4 s.h.) Prerequisite: 35:111, Beginning Spanish, or two years or more of high school Spanish. A comprehensive grammar review, composition, and conversation course. Reading for meaning and cultural exposure to Hispanic countries. Course de-

signed to promote facility in speaking and understanding the spoken and written idiom. Regular attendance required. (45-30)

35:212 Intermediate Spanish II (4 s.h.)

Prerequisite: 35:211, Intermediate Spanish I or consent of instructor. A continuation of 35:211. A comprehensive grammar review, composition, and conversation course. Greatest grammatical emphasis is on use of subjunctive mood. Continuation of reading for improved fluency and acquaintance with Hispanic literature and culture. Course designed to improve facility in speaking and understanding spoken and written Spanish. Regular attendance required. (45-30)

35:220 Intermediate German I (4 s.h.)

Prerequisite: 35:121, Beginning German, two years of high school German, or equivalent. Continued drill with the grammar, idioms, and vocabulary necessary to give the student a practical working knowledge of both the spoken and written language. Continued reading of texts to provide the student with an appreciation of German culture. (45-30)

35:221 Intermediate German II (4 s.h.)

Prerequisite: 35:220, Intermediate German I, three years of high school German, or equivalent. A continuation of 35:220. (45-30)

35:260A Advanced Spanish I (1 s.h.)

Prerequisite: 35:212, Intermediate Spanish II, or a minimum of four years of high school Spanish or by permission of instructor. An individualized program of study including listening comprehension, translation, composition, and conversation. Reading assignments include short stories by well-known authors but no in-depth study of literature. For students well-versed in grammar and with substantial vocabulary. (15-0)

35:260B Advanced Spanish I (2 s.h.) Same as 35:260A. (30-0)

35:260C Advanced Spanish I (3 s.h.) Same as 35:260A. (30-30)

35:261A Advanced Spanish II (1 s.h.) A continuation of 35:260C. (15-0)

35:261B Advanced Spanish II (2 s.h.) Same as 35:261A. (30-0)

35:261C Advanced Spanish II (3 s.h.) Same as 35:261A. (30-30)

35:299A Special Problems in Foreign Languages French-Spanish-German* (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. (15-0)

35:299B Special Problems in Foreign Languages French-Spanish-German* (2 s.h.) Same as 35:299A. (30-0)

35:299C Special Problems in Foreign Languages French-Spanish-German* (3 s.h.) Same as 35:299A. (45-0)

40 Mathematics

40:040 Basic Mathematics (4 s.h.)

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 the A.A., A.S., A.S.B., or A.A.S. degrees and will not be used in calculating the cumulative grade point average for graduation. Credit may only apply to the A.G.S. Degree. Students will be allowed to register in Basic Mathematics upon referral from the instructor and/or appropriate diagnosis. (60-0)

40:051 Developmental Math (1 s.h.)

Topics include place value, whole number operations, exponents, order of operations, rounding and estimating, introduction to variables, signed numbers, order of operations with signed numbers, and algebraic expressions. This course may not be used to satisfy core requirements. Credit may only apply to the A.G.S. Degree. Students will be allowed to register in Developmental Mathematics upon referral from the instructor. (15-0)

40:052 Developmental Math (1 s.h.)

Topics include applying signed number rules, combining like terms, translating algebraic equations, solving equations using properties of equality, finding perimeter and circumference, using the four operations with fractions/mixed numbers. This course may not be used to satisfy core requirements. Credit may only apply to the A.G.S. Degree. Students will be allowed to register in Developmental Mathematics upon referral from the instructor. (15-0)

40:053 Developmental Math (1 s.h.)

Topics include decimal usage with the four operations of math, decimals used with the order of operations, converting decimals to

fractions and fractions to decimals, square roots, area, volume, reading and constructing pictographs, bar graphs and line graphs, using a rectangular coordinate system, plotting points and linear equations on the rectangular coordinate system, computing mean, median, mode and grade point average. This course may not be used to satisfy core requirements. Credit may only apply to the A.G.S. Degree. Students will be allowed to register in Developmental Mathematics upon referral from the instructor. (15-0)

40:054 Developmental Math (1 s.h.)

Topics include ratios, proportions, units rates, similar triangle theory, metric measurements (meter, liter, gram), percentages, simple interest, monthly payments on loans, salaries and commissions. This course may not be used to satisfy core requirements. Credit may only apply to the A.G.S. Degree. Students will be allowed to register in Developmental Mathematics upon referral from the instructor. (15-0)

40:060 Beginning Algebra (4 s.h.)

Prerequisite: Basic arithmetic skills as shown by one of the following: 1) an appropriate score on COMPASS or the ACT Math Test, 2) a passing grade of "C" or better in the Basic Mathematics or Developmental Mathematics course). This course is intended for students who have had no previous experience in algebra. Topics include: the real number system, linear and some quadratic equations, exponents, factoring, rational expressions, graphing, systems of equations, square root manipulation, and application of concepts. Credit earned will not satisfy the requirements for the A.A., A.S., A.S.B., or A.A.S. degrees and will not be used in calculating the cumulative grade point average for graduation. Credit may apply only to the A.G.S. degree. (60-0)

40:120 Intermediate Algebra (3 s.h.)

Prerequisite: 40:060, Beginning Algebra (grade of "C" or better), or one year in elementary algebra. It should prepare the student for a

course in college algebra and trigonometry. 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. (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)

40:122 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. Successful completion ("C" or higher) of at least three high school mathematics courses including Algebra I, Algebra II, and Geometry. The course is especially 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: 40:120, Intermediate Algebra (grade of "C" or better), or equivalent. This course provides a sampling of applied mathematics topics from various disciplines. Some topics covered include linear systems, matrices, linear programming, set theory, and probability. (45-0)

40:140 Introduction to Statistics (3 s.h.)

Prerequisite: 40:120, Intermediate Algebra (grade of "C" or better), or equivalent. 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 regression. Statistical software is used in the course. (45-0)

40:151 College Algebra and Trigonometry I (4 s.h.)

Prerequisite: three semesters of high school algebra or 40:120, Intermediate Algebra (grade of "C" or better), or equivalent. 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 and 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)

40:161 Precalculus (4 s.h.)

Prerequisite: four semesters of high school algebra and one year of geometry or equivalent. 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)

40:170 Fortran (3 s.h.)

Prerequisite: 40:151, College Algebra & Trigonometry I, or the equivalent. This course will use the scientific programming languages, Fortran 77. It is a structured programming approach for students in the sciences or science-related areas. Topics include an introduction and brief history of computers, problem solving and algorithm development, fundamental Fortran statements, looping and control structures, input and output formats, arrays, functions and subroutines, graphing, and data files. (42-6)

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. Graphing calculator is required. (45-0)

40:251 Analytic Geometry and Calculus I (4 s.h.)

Prerequisite: 40:161, Precalculus, or equivalent. Topics include analytic geometry concepts, limits, derivatives and integrals of algebraic, trigonometric, logarithmic, and exponential functions, applications of differentiation, and L'Hopital's Rule. (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; inverse trigonometric and hyperbolic functions; techniques of integration; improper integrals; 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. (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. (45-30)

50:122 Music Theory II (4 s.h.)

Prerequisite: 50:121, Music Theory I. 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. (45-30)

50:123 Music Theory III (4 s.h.)

Prerequisite: 50:122, Music Theory II. Through extensive music analysis and writing, students examine the contrapuntal writing style of the late Renaissance and Baroque periods and the simple formal structures perfected in the Classical period. Harmonic vocabulary is a continuation of Music Theory II and includes chromatic harmonies utilized during the common practice period. Continued development of aural and keyboard skills are also included in the course work. (45-30)

50:124 Music Theory IV (4 s.h.)

Prerequisite: 50:123, Music Theory III. A continuation of Music Theory III, Music Theory IV incorporates the techniques and materials of music utilized from the nineteenth century to the present. Through systematic analysis, the student discovers the definitions and characteristics of each of the significant compositional styles of the time. Advanced performance in aural and keyboard skills is required. (45-30)

50:127A Applied Music Piano (1 s.h.)

One 30-minute lesson per week to be arranged. Emphasis on performance through development of strong technical foundation and well-rounded musicianship. Repertoire of traditional and contemporary literature. (8-14)

50:127B Applied Music Piano (2 s.h.)

Prerequisite: permission from instructor. One 60-minute lesson per week to be arranged. Emphasis on performance through development of strong technical foundation and well-rounded musicianship. Repertoire of traditional and contemporary literature. (16-28)

50:128A Applied Music Piano (1 s.h.)

One 30-minute lesson per week to be arranged. Emphasis on performance through development of strong technical foundation and well-rounded musicianship. Repertoire of traditional and contemporary literature. (8-14)

50:128B Applied Music Piano (2 s.h.)

Prerequisite: permission from instructor. One 60-minute lesson per week to be arranged. Emphasis on performance through development of strong technical foundation and well-rounded musicianship. Repertoire of traditional and contemporary literature. (16-28)

50:129A-B Applied Music Voice (1-2 s.h.)

One or two lessons per week, 30 minutes each, to be arranged. Concentration on performance. (2 s.h. only by consent of the director.) (8-14) or (16-28)

50:130 A-B Applied Music Voice (1-2 s.h.)

One or two lessons per week, 30 minutes each, to be arranged. Concentration on performance. (2 s.h. only by consent of director.) (8-14) or (16-28)

50:131A-Applied Music Instrumental (1 s.h.)

One 30-minute lesson per week to be arranged. Performance on the student's instrument is emphasized. Areas of instruction include technique, stylistic interpretation, and tone production. (8-14)

50:131B - Applied Music Instrumental (2 s.h. only by consent of the instructor)

One 60-minute lesson per week to be arranged. Performance on the student's instrument is emphasized. Areas of instruction include technique, stylistic interpretation, and tone production. (16-28)

50:132A Applied Music Instrumental (1 s.h.)

A continuation of 50:131A. See Applied Music Instrumental 50:131A for course description. (8-14)

50:132B Applied Music Instrumental (2 s.h. only by consent of the instructor)

A continuation of 50:131B. See Applied Music Instrumental 50:131B for course description. (16-28)

50:133 Concert Chorus (1 s.h.) Performs in concert on campus, for area high school assemblies, and community meetings. Participates in music festivals. May be repeated for credit. (0-90)

50:134 Concert Chorus (1 s.h.) Performs in concert on campus, for area high school assemblies, and community meetings. Participates in music festivals. May be repeated for credit. (0-90)

50:135 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. (16-0)

50:136 Band (1 s.h.) A continuation of 50:135. See Band 50:135 for course description. (16-0)

50:137 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 NIACC students and adults in the North Iowa area. (16-0)

50:138 Orchestra (1 s.h.) A continuation of 50:137. See Orchestra 50:137 for course description. (16-0)

50:139 Chamber Ensemble (½ s.h.) Prerequisite: consent of instructor. 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, woodwind, strings, or percussion instrumentalists. Also includes jazz small groups and combos. Time arranged. (8-0)

50:140 Chamber Ensemble (½ s.h.) Prerequisite: consent of instructor. A continuation of 50:139. See Chamber Ensemble 50:139 for course description. (8-0)

50:141 Jazz Band (1 s.h.) The NIACC Jazz Ensemble rehearses one hour twice each week in preparation for concerts on campus, for area high school assemblies, and community meetings. Concentration on jazz repertoire from 1930 to the present. Open to all interested NIACC students. (30-0)

50:142 Jazz Band (1 s.h.) A continuation of 50:141. See Jazz Band 50:141 for course description. (30-0)

50:143 Voice Ensemble (NIACC Singers) (1 s.h.) Vocal work in small ensembles. Performance before school, civic, and community groups. Membership by audition only. (0-30)

50:144 Voice Ensemble (NIACC Singers) (1 s.h.) See 50:143 for course description. (0-120)

50:145 Pep Band (½ s.h.) The NIACC Pep Band plays for athletic events and spirit events during the school year. Open to all interested students. School instruments are available for those not owning their own. (12-0)

50:146 Pep Band (½ s.h.) A continuation of 50:145. See Band 50:145 for course description. (12-0)

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. (8-14)

50:196 Beginning Piano (1 s.h.) Prerequisite: 50:195, Beginning Piano. One 30-minute lesson per week to be arranged. Designed for students who are beginners and have completed Beginning Piano, 50:195. Basic piano literature used. May be repeated for credit. (8-14)

50:227A Applied Music Piano (1 s.h.) One 30-minute lesson per week to be arranged. Emphasis on performance through development of strong technical foundation and well-rounded musicianship. Reperto-

toire of traditional and contemporary literature. (8-14)

50:227 B Applied Music Piano (2 s.h.) Prerequisite: permission from instructor. One 60-minute lesson per week to be arranged. Emphasis on performance through development of strong technical foundation and well-rounded musicianship. Repertoire of traditional and contemporary literature. (16-28)

50:228A Applied Music Piano (1 s.h.) One 30-minute lesson per week to be arranged. Emphasis on performance through development of strong foundation and well-rounded musicianship. Repertoire of traditional and contemporary literature. (8-14)

50:228 B Applied Music Piano (2 s.h.) Prerequisite: permission from instructor. One 60-minute lesson per week to be arranged. Emphasis on performance through development of strong technical foundation and well-rounded musicianship. Repertoire of traditional and contemporary literature. (16-28)

50:229A-B Applied Music Voice A-B (1-2 s.h.) (2 s.h. only by consent of the director) One or two lessons per week, 30 minutes each, to be arranged. Concentration on performance. (8-14) or (16-28)

50:230 A-B Applied Music Voice (1-2 s.h.) (2 s.h. only by consent of the director) One or two lessons per week, 30-minutes each, to be arranged. Concentration on performance. (8-14) or (16-28)

50:231A Applied Music Instrumental (1 s.h.) Open to all students who have completed two semesters of Applied Music Instrumental lessons. See Applied Music Instrumental 50:131A for course description. (8-14)

50:231 B Applied Music Instrumental (2 s.h. only by consent of instructor)

Open to all students who have completed two semesters of Applied Music Instrumental lessons. See Applied Music Instrumental 50:131B for course description. (16-28)

50:232A Applied Music Instrumental (1 s.h.) A continuation of 50:231A. See Applied Music Instrumental, 50:131A, for course description. (8-14)

50:232B Applied Music Instrumental (2 s.h. only by consent of the instructor) continuation of 50:231B. See Applied Music Instrumental, 50:131B, for course description. (16-28)

50:233 Concert Chorus (1 s.h.) Performs in concert on campus, for area high school assemblies, and community meetings. Participates in music festivals. May be repeated for credit. (0-90)

50:234 Concert Chorus (1 s.h.) Performs in concert on campus, for area high school assemblies, and community meetings. Participates in music festivals. May be repeated for credit. (0-90)

50:235 Band (1 s.h.) Open to all students who have completed one year of Band. See 50:135 for course description. (16-0)

50:236 Band (1 s.h.) A continuation of 50:235. See Band 50:135 for course description. (16-0)

50:237 Orchestra (1 s.h.) Open to all students that have completed one year of Orchestra. See 50:137 for course description. (16-0)

50:238 Orchestra (1 s.h.) A continuation of 50:237. See 50:137, Orchestra, for course description. (16-0)

50:239 Chamber Ensemble (½ s.h.) Prerequisite: consent of instructor. Open to all students who have completed one year of Chamber Ensemble. See 50:139 for course description. (8-0)

50:240 Chamber Ensemble (½ s.h.) Prerequisite: consent of instructor. A continuation of 50:239. See 50:139 for course description. (8-0)

50:241 Jazz Band (1 s.h.) Open to all students that have completed one year of Jazz Band. See 50:141 for course description. (30-0)

50:242 Jazz Band (1 s.h.) A continuation of 50:241. See 50:141 for course description. (30-0)

50:243 Voice Ensemble (NIACC Singers) (1 s.h.) See 50:143 for course description. (0-120)

50:244 Voice Ensemble (NIACC Singers) (1 s.h.) (0-120) See 50:143 for course description.

50:245 Pep Band (½ s.h.) Open to all students who have completed one year of Pep Band. See 50:145 for course description. (12-0)

50:246 Pep Band (½ s.h.) A continuation of 50:245. See 50:145, Band, for course description. (12-0)

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. (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

60:112 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 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)

60:117 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.) (40-160)

60:121 Basketball (1 s.h.) (40-160)

60:122 Football (1 s.h.) (40-160)

60:123 Golf (1 s.h.) (10-60)

60:127 Softball (1 s.h.) (40-160)

60:128 Volleyball (1 s.h.) (40-100)

60:150 Theory of Coaching Interscholastic Athletics (1 s.h.) Guiding principles and techniques of coaching interscholastic athletics. Discussion of problems relating to interscholastic coaching. (15-0)

60:152 Introduction to Anatomy and Physiology for Coaching (1 s.h.) 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. (15-6)

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. (12-6)

60:220 Baseball (1 s.h.) (40-160)

60:221 Basketball (1 s.h.) (40-160)

60:222 Football (1 s.h.) (40-160)

60:223 Golf (1 s.h.) (10-60)

60:227 Softball (1 s.h.) (40-160)

60:228 Volleyball (1 s.h.) (40-100)

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. (15-0)

60:299B Special Problems in Physical Education* (2 s.h.) Same as 60:299A. (30-0)

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 organic 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 and energy resources, plus air, water, soil, and waste management. Environmental decision-making strategies to resolve current and future environmental issues are stressed. (45-0)

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 a general overview of the livestock industry. The student will develop an understanding of and will be able to apply the basic principles of animal selection, breeding, genetics, feeding, health, and husbandry practices. Students will have the opportunity to practice husbandry skills at the NIACC Teaching Farm. (45-15)

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)

70:122 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. Not accepted as a prerequisite for other advanced chemistry courses except 70:273, Organic Chemistry. (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, ar-

ticular, 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.)

Prerequisite: 70:112, Animal Science I. Advanced principles of livestock production and management. Areas of emphasis include: animal husbandry practices which result in greater performance and profit; livestock facilities requirements; production trends in livestock production; and nutritional requirements for swine and beef 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 cat dissection 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. Cat dissections 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 Principles 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. (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. (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. (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 139-142 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 coenroll in 30:120, College Reading Skills. Introduction to the scientific study of behavior: a brief history of psychology as a science; influences of heredity and environment; motivation, frustration and conflict; the learning process, intelligence, perception, and mental health. (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. (42-3)

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 course in sociology. A study

of the basic processes of group behavior identifying the main forces that hold groups together or weaken them. The study of society, family and group life, social organizations, culture, population structure and change, social change, and community structure, both urban and rural. (45-0)

80:111 Social Problems (3 s.h.)

An introduction to the study of contemporary social problems. The course examines the identification of social problems, underlying conditions and causes, and possible solutions to them. Emphasis on sociological and critical thinking perspectives. Exploration of issues involving deviance, substance abuse, educational, legal, health care, and political systems, and gender, racial, and social inequalities. (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. (0-30)

80:126 Student Senate (1 s.h.)

Same as 80:125. (0-30)

80:133 Macroeconomics (3 s.h.)

An introductory study of how people use scarce resources to satisfy their many material wants and needs. The emphasis is on the determination of national income, output, employment and prices, and the role of the money and banking system in a market economy. (45-0)

80:134 Microeconomics (3 s.h.)

requisite: 80:133, Macroeconomics. An introductory study of how people use scarce resources to satisfy their many material wants and needs. The emphasis is on the concept of scarcity, supply and demand, and decision making by individual consumers and businessmen in the product and resource markets. (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 Native American History: Prehistory to Mid-20th Century (3 s.h.) Ethnographic, geographic, and historical survey of the social, cultural, and political systems developed by Native Americans north of Mexico. Points of emphasis include native religion and world view, family life, agricultural and hunting practices, material culture, trade and diplomacy, political structures, and the mutualities impact on societies and policies resulting from contact and interaction with Europe and the United States. (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. (45-8)

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)

80:225 Student Senate (1 s.h.) Same as 80:125. (0-30)

80:226 Student Senate (1 s.h.) Same as 80:125. (0-30)

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 socio-economic/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)

85:103 Radio Speaking (1 s.h.)

Voice analysis and training for telecommunication experience with individual study in cooperation with a local radio/television station. By consent of the instructor. (15-0)

85:104 Voice and Diction (2 s.h.)

Improving oral communication through an understanding of the physiology of the vocal mechanism and application of the phonetic alphabet. Rec-

ommended for students interested in music, speech, drama, and elementary teaching. (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. (30-45)

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. (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 college-transfer students to provide a work 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 90 hours of approved employment to be completed in a term. Appropriateness of learning objectives is an essential factor in the approval process. (15-435)

89:101 A-B-C-D-E Cooperative Work Experience (1-5 s.h.)

(15-435)

89:102 A-B-C-D-E Cooperative Work Experience (1-5 s.h.)

(15-435)

89:103 A-B-C-D-E Cooperative Work Experience (1-5 s.h.)

(15-435)

89:104 A-B-C-D-E Cooperative Work Experience (1-5 s.h.)

(15-435)

89:105 A-B-C-D-E Cooperative Work Experience (1-5 s.h.)

(15-435)

89:120 Individualized Educational Planning & Assessment (1 s.h.)

requisite: 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 Job-Seeking Skills (1 s.h.)

Develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job-entry successful. (15-0)

89:151 Academic Success Seminar (2 s.h.)

Designed primarily for freshmen. The focus is assisting in the development of effective study tech-

niques 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)

89:166 Nurse Aide II (3 s.h.) Prerequisite/Corequisite: Successful completion of the 75-hour nurse aide course as documented by a transcript or a certificate. Students do not have to be on Nurse Aide Registry. Health physical with current immunizations. This 80-hour course is designed as an optional additional unit of instruction to be given either in conjunction with or following the approved 75-hour course. The 75-hour course meets the OBRA (Nursing Home Reform) requirements for nurse aides who work in long-term care. This additional material provides the learner with the content emphasizing the knowledge, attitude, and skills necessary for providing patient care in the acute setting. (35-15)

89:170 First Responder (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 driver's license. Be 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. Department of Transportation. (23-17)

89:189 Emergency Medical Technician - Intermediate Theory (4 s.h.) Prerequisite/Corequisite: Be at least

18 years of age at the time of enrollment. High school diploma or general education equivalent. Maturity of judgment, sound moral character, and health status provides reasonable assurance that the student will meet the physical and mental demands of the occupation. Evidence of successful completion in CPR. Evidence of successful completion of a course of training for EMT-Basic. Evidence of certification as an EMT-Basic from the state of Iowa or National Registry. Equivalent military training within the past year and experience as approved by the state agency. 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. Physical examination required prior to beginning hospital clinicals with immunizations and/or hepatitis B vaccine or waiver. (The EMT-A class is a prerequisite to this class.) 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. (48-22)

89:190 Emergency Medical Technician - Intermediate Clinical/Field (3 s.h.) Prerequisite/Corequisite: Be at least 18 years of age at the time of enrollment. High school diploma or general education equivalent. Maturity of judgment, sound moral character, and health status provides reasonable assurance that the student will meet the physical and mental demands of the occupation. Evidence of successful completion in CPR. Evi-

dence of successful completion of a course of training for EMT-Basic. Evidence of certification as an EMT-Basic from the state of Iowa or National Registry. Equivalent military training within the past year and experience as approved by the state agency. A recommendation by the Advanced Care Training Admission Committee attesting to the applicant's attitude, professionalism, motivation, dependability, and desire to follow instructions and orders with reliability. Physical examination required prior to beginning hospital clinicals with immunizations and/or hepatitis B vaccine or waiver. Completion of 89:189, EMT-I Part I. This course is a continuation of EMT-I Part I. It includes 65 hours of hospital clinical experience and 70 hours of field experience. (0-135)

89:191 Emergency Medical Technician - Paramedic Part I (8 s.h.)Prerequisite/Corequisite: High school graduation or general education equivalent. Be 18 years of age at time of enrollment. Maturity of judgment, sound moral character, and health status which provides reasonable assurance that the student will meet the physical and mental demands of the occupation. Evidence of current BCLS certification. Evidence of successful completion of a course of training for Emergency Medical Technician - Intermediate. Evidence of certification as an Emergency Medical Technician-Intermediate from the state of Iowa or National Registry. Equivalent military training within the past year and experiences as approved by the state agency may be substituted. A recommendation by the Advanced Care Training Admissions Committee attesting to the applicant's aptitude, professionalism, motivation, dependability, and desire to follow instructions and protocols with reliability. (The EMT-B class and at least Part I of the EMT-I class are prerequisites to this class.) This course provides the student with the

most advanced pre-hospital training available. It includes roles and responsibilities, EMS systems and communications, legal aspects, rescue and major incident response, lifting and moving, patient assessment, advanced airway management, advanced shock management, administration of medications, respiratory emergencies, cardiovascular emergencies (includes dysrhythmia recognition and ACLS). (97-48)

89:192 Emergency Medical Technician - Paramedic Part II (5 s.h.)Prerequisite/Corequisite: High School graduation or general education equivalent. Be 18 years of age at time of enrollment. Maturity of judgment, sound moral character, and health status which provides reasonable assurance that the student will meet the physical and mental demands of the occupation. Evidence of current BCLS certification. Evidence of successful completion of a course of training for Emergency Medical Technician - Intermediate. Evidence of certification as an Emergency Medical Technician - Intermediate from the state of Iowa or National Registry. Equivalent military training within the past year and experiences as approved by the state agency may be substituted. A recommendation by the Advanced Care Training Admissions Committee attesting to the applicant's aptitude, professionalism, motivation, dependability, and desire to follow instructions and protocols with reliability. Must have completed EMT-P Part I (89:191). This course is a continuation of EMT-P Part I. It includes trauma, burns, 80 hours of hospital clinical experience, and 60 hours of field experience. (80-60)

89:193 Emergency Medical Technician - Paramedic Part III (5 s.h.)Prerequisite/Corequisite: High school graduation or general education equivalent. Be 18 years of age at time of enrollment. Maturity of judgment, sound moral character, and health status which provides reasonable assurance that the student will

meet the physical and mental demands of the occupation. Evidence of current CPR certification. Evidence of successful completion of a course of training for Emergency Medical - Intermediate. Evidence of certification as an Emergency Medical Technician - Intermediate from the state of Iowa or National Registry. Equivalent military training within the past year and experiences as approved by the state agency may be substituted. A recommendation by the Advanced Care Training Admissions Committee attesting to the applicant's aptitude, professionalism, motivation, dependability, and desire to follow instructions and protocols with reliability. Must have completed EMT-P Part I and Part II (89:191 and 89:192). This course is a continuation of EMT-P Part I and EMT-P Part II. It includes 100 hours of hospital clinical experience and 120 hours of field experience. (0-100-120)

89:194 Emergency Medical Technician - Paramedic Part IV (5 s.h.)Prerequisite/Corequisite: High school graduation or general education equivalent. Be 18 years of age at time of enrollment. Maturity of judgment, sound moral character, and health status which provides reasonable assurance that the student will meet the physical and mental demands of the occupation. Evidence of current BCLS certification. Evidence of successful completion of a course of training for Emergency Medical-Intermediate. Evidence of certification as an Emergency Medical Technician-Intermediate from the state of Iowa or National Registry. Equivalent military training within the past year and experiences as approved by the state agency may be substituted. A recommendation by the Advanced Care Training Admissions Committee attesting to the applicant's aptitude, professionalism, motivation, dependability, and desire to follow instructions and protocols with reliability. Must have completed EMT-P Part I, II, and III (89:191 and 89:192 and 89:193). This course is a

continuation of EMT-P Part I, II, and III. It includes medical emergencies (endocrine, nervous, abdominal, poisoning, environmental, geriatric and pediatric), obstetrical emergencies, neonatal emergencies, and behavioral emergencies. (66-30)

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)

Quotable Quote:

You can have only two things in life, reasons or results. Reasons don't count.

-Robert Anthony, Ph.D.
American psychologist and writer

STUDENT HANDBOOK

STUDENT HANDBOOK

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ADMISSIONS

Students begin the admissions process by contacting the Admissions Office located on the second 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. For more information, call 515-422-4245 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 Drive, Mason City, Iowa 50401. You may also complete an online application.

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 and intended major or program are required on the application.
2. Submit your high school transcript or GED scores. (If you do not have your high school diploma or equivalent, contact the College to find out how we can help you earn one.) Upon graduation you should submit a final transcript.
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.
4. If you have earned credits at another college, have your transcript(s) forwarded to NIACC.

Note: Students applying for the Associate Degree Nursing, Practical Nursing, LPN to AND, Medical Lab Technician, Physical Therapist Assistant or Information Systems Technology Programs need to complete a specific packet of application materials available from the Student Services Office in the Administration Building, Room 104. Please call 515-422-4207 or 1-888-GO NIACC, Ext. 4207, for more information.

When your admissions folder is complete, the College will send you an official letter of acceptance.

High school students may enroll in both high school and college classes provided your 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.)

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 about how to adapt to their new college environment.

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).

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.

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 515-422-4105, or 1-888-GO NIACC, Extension 4105, or stop at the Student Services Office in the Administration Building.

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.

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 Administration Building, Room 104K.

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.

BACCHUS

Boost Alcohol Consciousness Concerning the Health of University Students (BACCHUS) is a student club which promotes developing responsible habits, attitudes and lifestyles regarding alcohol and related issues. As a member of BACCHUS, your activities might include National Awareness Week, Red Ribbon Campaign, and peer education. You may also earn college credit. Contact Jonnie Webster, Counselor, for more information.

Informational brochures are available in the Student Services Office, the Activity Center, the Independent Study Lab, and in our housing facilities.

College Policy

The unlawful manufacture, distribution, dispensation, possession, or use of a controlled substance in college premises or while representing the college off campus is absolutely prohibited. Violations of this policy will result in disciplinary action, up to and including expulsion, and may have legal consequences. (See page 202.)

State Law

According to Iowa law anyone under 21 who is caught driving with a blood alcohol content of .02 or more will lose their driver's license or permit for up to 60 days. Temporary driving permits for school, work, or any reason, will not be allowed during the suspension period. Realize that .02 is a very small amount — as little as one beer or drink.

Student Health

Campus Health Services

Health services are available for students every Wednesday during the fall and spring semesters from 1-4 p.m. in the OK House (excluding breaks). Services are provided through the Mason City Clinic, Cerro Gordo Department of Public Health, and North Iowa Area Community College. 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.

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.

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.

Reported Occurrences

Murder.....	0
Rape	0
Robbery	0
Aggravated Assault.....	1
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 and Sexual Harassment

The following policies, procedures, and guidelines may be applied to incidents of sexual abuse and sexual harassment. Sexual abuse is defined as sexual contact with an individual who is either unwilling or unable to consent to the sexual contact. Sexual harassment consists of unwelcome actions or language of a sexual nature which is affecting work or academic-related decisions or creates a hostile working or academic environment.

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 or sexual harassment.

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 9-911 from a campus extension phone or 911 from 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 discipline system may be utilized for incidents where the parties involved are NIACC students. (See page 206.)

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.

Sexual Harassment

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."

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
- Maximum \$600 grant
- FAFSA Application must be filed by June 1

Note: Those filing beyond this deadline may qualify for college-funded vocational-technical grants.

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

Iowa Work Study (SWS)

- Part-time work opportunities
- State funded for Iowa residents
- Student must demonstrate need

Federal Work Study (FWS)

- Part-time work opportunities
- Federally funded, NIACC administered
- Student must demonstrate need

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
- 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

Federal Direct PLUS Loan

- Loans available to parents of dependent students
- Financial need is not required
- Maximum loan amount limited to cost of attendance minus other financial aid

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 (515) 422-4168.

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 deadline for most scholarships is December 1.

Trustee's 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.

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

Adult Part-time Scholarships

These community-based scholarships (up to \$300) 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 available under this program 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.

Dormitory 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 Office.

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 Financial Aid, or the Pappajohn Center located in Building C.

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 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 1999-2000 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 March 1.

Recipients must agree to submit official transcripts showing successful completion of work for the period covered by the grant award.

Dr. J.E. Christopherson Scholarship Fund

The Dr. J.E. Christopherson Scholarship Fund was established by the family, friends, and associates of Dr. Joseph E. Christopherson 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
 L. Earl Ashland Memorial Fund
 Clifford H. Beem Memorial Fund
 Barbara Bush Scholarship Fund
 Business & Professional Women
 Carstensen Family Scholarship Fund
 Cerro Gordo County Medical Society
 Caroline O. Colson Memorial Scholarship
 George Coyan Memorial Scholarship Fund
 Donald K. DePrenger Memorial 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 Fund
 Hermanson Scholarship
 John and Donna Hitzhusen Scholarship Fund
 Frank Hoffman Memorial Scholarship Fund
 Robert H. and Mary Isensee Scholarship Fund
 KAL Memorial Fund
 Rollo C. Keithahn Memorial Scholarship Fund
 Harriet Klath Memorial Fund
 Glen and Penny Krogh Scholarship Fund
 Florence Liebl Memorial 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
 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
 Marie J. Schalekamp Memorial Scholarship
 Frank Schmitz Memorial Scholarship Fund
 Hazel Simpson Scholarship
 Kathleen Sonnesyn Memorial Scholarship Fund
 Stenecker Family Fund
 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

Term Scholarships (Sponsors vary annually)

Charles City Scholarship Fund
 Communication Skills Scholarship
 Cooper Company
 Crow's Hybrid Corn Company
 Curries Company Scholarship
 Curries Mechanical Design Technology Scholarship
 Delta Kappa Gamma XI Chapter
 Mary Beth Greenan Special Education Scholarship Fund
 Haas Chiropractic Scholarship Fund
 Kitchen Cabinet Scholarship Fund
 Lake Mills Scholarship Fund
 Captain James E. Lovell, Jr. Scholarship
 Angus MacNider Memorial Scholarship

Martin Marietta Scholarship
 Mason City Chamber of Commerce
 MCHS Class of 1961 Scholarship
 Masters' Chiropractic Scholarship
 Loyal and Pearl Minor Memorial Fund
 NBJ Corporation Fine Arts Scholarship
 NIACC Alumni Association
 NIACC Board of Director's Scholarship
 NIACC Bookstore Scholarship
 NIACC Foundation Board of Director's Scholarship
 Noon Kiwanis Club
 North Iowa Area College Educators Association
 North Iowa Mercy Health Center Auxiliary Scholarship
 Norwest Bank Scholarship
 Frederick J. Olson Memorial Scholarship
 John and Mary Pappajohn Scholarship
 Premier FastTrac Scholarship
 Virginia Mae Rodgers Scholarship
 Carletta Sinnett Rosenthal Memorial Fund
 75th Anniversary Scholarship Fund
 Bertha Stebens Fine Arts Scholarship Fund
 George Stephanopoulos Scholarship
 Ira Stinson Memorial Fund
 3M Forest City Distribution Center Scholarship
 UNI Real Estate Scholarship
 Wa-Tan-Ye Club

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 Officer and Employment and Career Services Director. (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.

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 receive 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.

Remedial courses and repeated courses may be used as part of the student's load. However, maximum time frames still govern 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.

Cancellation of Eligibility

Any student on Financial Aid Probation will have one semester to bring their course work up to minimum standards. A student failing to attain these standards by the end of the probationary semester 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 reviewed by the Vice President for Student Services 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 your last documented date of class attendance as provided by your instructor(s). If you get Federal student aid, **and you do not attend class** you will have to pay it back.

REGISTRATION AND RECORDS

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. All steps must be taken before registration is complete.

Registration information for credit courses is 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.

Semester course schedules are available in the Student Services Office as soon as they are released by the Vice President for Academic Affairs Office.

Waitlist Policy

If a student is placed on a course waitlist by the Records Office at the time of their registration, they will remain on the waitlist through the Wednesday before classes begin or such time that an opening occurs. If an opening does occur, the first person on the waitlist 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 waitlists will no longer be in effect. All waitlists 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.

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.

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: Faculty signature(s) will be required for all credit courses dropped after the first week. The last day to drop a course will be the Friday of Midterm.

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 confer immediately with a counselor and then make application to the Registrar for withdrawal. The last day for total withdrawal from all classes will be the Friday of Midterm. 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.

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, 1999. Spring semester bill will be sent in December and is due in full January 15, 2000.

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 15, September 15, October 15, and November 15. Spring semester bill will be sent in December with equal payments due January 15, February 15, March 15, and April 15. A 1% interest charge is assessed each month on the unpaid balance.

Extended Payment Plan

Pay fall and spring charges in 12 monthly installments beginning May 15; June 15 for the 11-month plan; or July 15 for the 10-month plan; ending April 15. A \$40 enrollment fee is due with the first monthly payment. If payments are received on time there is no interest or other charges. Payments can be deducted from your bank account.

Failure to make payment (or file for financial aid) prior to the beginning of the semester will result in cancellation of your schedule (August 17 for the Fall Term, January 16 for the Spring Term). Reinstatement is possible when payment is made and if the courses are still available.

A \$25.00 re-enrollment fee will be assessed. If no payment has been made either directly or through financial aid by the third payment date, you will be administratively withdrawn from classes and are subject to dismissal from NIACC 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.

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 residents pay at the rate of 100 percent.
 - b) Non-Iowa residents pay at the rate of 150 percent of the Iowa resident tuition rate.

The following tuition schedule is effective for all registrations occurring after June 30, 1999, and is subject to change or modification.

SEMESTER HOUR LOAD	IOWA RESIDENT TUITION	NON-IOWA RESIDENT TUITION
1	\$ 62.15	\$ 93.20
2	124.30	186.40
3	186.45	279.60
4	248.60	372.80
5	310.75	466.00
6	372.90	559.20
7	435.05	652.40
8	497.20	745.60
9	559.35	838.80
10	621.50	932.00
11	683.65	1,025.20
12	745.80	1,118.40
13	807.95	1,211.60
14	870.10	1,304.80
15	932.25	1,398.00
16	994.40	1,491.20
17	1,056.55	1,584.40
18	1,118.70	1,677.60
19	1,180.85	1,770.80
20*	1,243.00	1,864.00

***20 HOUR CAP ON TUITION AND FEES**

Fees

SEMESTER HOUR LOAD	MATERIALS* LAB & SUPPLIES FEE	RECORDS FEE	STUDENT SERVICES FEE
1	\$ 5.90	\$ 8.70	\$ 2.40
2	11.80	8.70	4.80
3	17.70	8.70	7.20
4	23.60	8.70	9.60
5	29.50	8.70	12.00
6	35.40	8.70	14.40
7	41.30	8.70	16.80
8	47.20	8.70	19.20
9	53.10	8.70	21.60
10	59.00	8.70	24.00
11	64.90	8.70	26.40
12	70.80	8.70	28.80
13	76.70	8.70	31.20
14	82.60	8.70	33.60
15	88.50	8.70	36.00
16	94.40	8.70	38.40
17	100.30	8.70	40.80
18	106.20	8.70	43.20
19	112.10	8.70	45.60
20*	118.00	8.70	48.00

***20 HOUR CAP ON TUITION AND FEES**

*Materials, Lab, and Supplies Fees support a variety of materials, supplies, computer, and library resources used in educational programs.

Applied Music Fees

Piano, vocal, and instrumental\$55 per course credit hour
THIS FEE IS IN ADDITION TO TUITION/FEES PER CREDIT HOUR

Beginning Piano Fee\$55
 (50:195 or 50:196) **THIS FEE IS IN ADDITION TO TUITION/FEES PER CREDIT HOUR**

Scuba Diving Course Fee

Total cost for the 1 s.h. course is \$196.30 which includes tuition, certification card, textbooks, pool work, and five open water training dives.

Other Fees

Transcript feeno charge
 Graduation fee (before December 31, 1999).....\$25.00
 Graduation fee (after January 1, 2000).....\$35.00

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) to terminate their

registration. Tuition/fee adjustments are made for withdrawals according to the following schedule:

16 Week Term Refund

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/

8-Week Term Refund

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 ON THE RECORDS FEE FOR COURSES/ TERMS UNDER 3 ½ WEEKS IN LENGTH.

Title IV Recipients

Refund and Repayment Policy

The refund schedule for recipients of Title IV Financial Aid will be calculated in accordance with PL 102-325, The Higher Education Amendments of 1992.

The following refund policies for recipients of Title IV Financial Aid will be used in calculating the largest applicable refund.

Prorata

This will be used for a first-time student who withdraws on or before the 60% point in time of the enrollment period. The refund considers the portion of the term not attended based upon the number of days the student did not complete divided by the number of days in the program.

Federal Refund

Students receive a full refund if withdrawal takes place prior to the start of classes; 90 percent refund for the first 10 percent of the enrollment period; 50 percent refund between the first 10 percent of the enrollment period and the end of the first 25 percent (in time) of that period of enrollment; 25 percent refund between the first 25 percent of the enrollment period and the end of the first 50 percent of that period.

No portion of a refund can be used to pay a student's unpaid charges due the institution. Students can also be required to repay Title IV assistance received for living expenses if the amount received exceeds the prorata amount of living expenses for the enrollment period.

Students who are compelled to withdraw from classes by extraordinary or uncontrollable circumstances may petition to the Registrar for a waiver of the refund policy.

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

Transcripts of record are given full value if coming from colleges or universities accredited by the North Central Association of Colleges and Secondary Schools 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.

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 2.0. To achieve your academic goal, it is important that you develop good study habits at the beginning of your stay 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 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)

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.

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. Credit is awarded after a student has successfully completed a minimum of 12 semester hours of work.

RESIDENCY POLICY GUIDELINES

The following guidelines shall be utilized for the purpose of determining the residency status of students (i.e. re-classification of non-resident students).

1. Students shall complete the appropriate "request for residency form" for classification as a resident of the State of Iowa, thereby establishing in-state tuition and fee charges.
2. Students shall submit the "request for residency 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.*

The student shall submit any three of the following:

- a. An Iowa drivers 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. Rent receipts for a habitation (house, apartment, etc.) in the State of Iowa (for 90 days prior to academic term for which residency status is sought)
- g. Other similar indicia.

4. Copies of the documentary evidence shall be attached to the "request for residency form."
5. 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.
6. The "request for residency form" and documentary evidence shall be filed in the Records Office.
7. 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.

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.
2. Completion of at least 15 of the last 20 semester hours at the North Iowa Area Community College.
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 40 semester hours:

Communications8 s.h.

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

Social Sciences8 s.h.

Humanities8 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 Requirement8 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.

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.

2. Completion of at least 15 of the last 20 semester hours at the North Iowa Area Community College.
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)	

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.
2. Completion of at least 15 of the last 20 semester hours at the North Iowa Area Community College.
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.
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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.

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.
2. Completion of at least 15 of the last 20 semester hours at North Iowa Area Community College.
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.
4. Completion of prescribed required two-year Medical Secretary curriculum.

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 increased potential to function in society through study in the general areas of communications, human relations, and natural sciences.

Requirements for the degree include:

1. Completion of at least sixty (60) semester hours of a prescribed two-year career curriculum.
2. Completion of at least 15 of the last 20 semester hours at the North Iowa Area Community College, 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.

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 nontraditional 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.
2. Completion of at least 15 of the last 20 semester hours at the North Iowa Area Community College.
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.

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 cumulative grade point average of 2.00 (C) is required. Developmental courses are not used in calculating the cumulative grade point average for graduation.

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

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. Completion of at least 15 of the last 20 semester hours at North Iowa Area Community College.
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.

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 may elect to graduate under requirements stated in the catalog in effect at the time of initial entry or in effect during the term of graduation. 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.

Dean's List

Full-time students who register and complete 12 or more credit hours and maintain at least 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 credit hours and maintain at least a 3.25 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.

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.

(Test-out credits are not considered graded credits.)

Graduation Honors

A student having earned an overall grade point average of 3.50 or more on all graded credits from NIACC will be graduated **WITH HIGHEST HONORS**. A student having earned an overall grade point average of 3.25 - 3.49 on all graded credits 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. A minimum of 30 semester hours of NIACC credit must be earned for degree recognition and a minimum of 15 semester hours of NIACC credit must be earned for diploma recognition.

(Test-out credits are not considered graded credits.)

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 for their degree 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.

(Test-out credits are not considered graded credits.)

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.

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, 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 contacted (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 Police Compliance Office
US Department of Education
600 Independence Avenue SW
Washington DC 20202-4605

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:

(Copied from the Guidelines for Postsecondary Institutions for Implementation of the Family Educational Rights and Privacy Act of 1974 as amended.)

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).

- 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 issued 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.

COLLEGIATE ATHLETIC PROGRAM

Jerry Dunbar, Athletic Director

Coaches

Baseball	Jerry Dunbar
Basketball, Men's	Steve Krafcisin
Basketball, Women's	John Oertel
Cheerleading	Julie Deets
Football.....	Dick Ramsey
Golf.....	Bill Kammeyer
Softball	Joe Yegge
Volleyball	Rachel McGuire

A full athletic program is maintained at NIACC. Men have the opportunity to participate in football, basketball, and baseball. Women's intercollegiate sports are softball, basketball, and volleyball. Both men and women have the opportunity to participate in golf. 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.

NIACC belongs to the Iowa Community/Junior College Conference. The eligibility requirements are established by the National Junior College Athletic Association and by the Iowa Area Community College Athletic Association. Questions concerning eligibility should be directed to the Athletic Director, AC111.

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.

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.

Area athletes are given preference in these awards which are given for the term of their education at NIACC provided they stay eligible and conduct themselves in a manner that will not bring dishonor to themselves or the school. 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.

ON-CAMPUS HOUSING

NIACC Dormitories, Inc.

North Iowa Area Community College, in cooperation with NIACC Dormitories, Inc., provides housing facilities for 480 single men and women. The dormitories are located at the north edge of the NIACC Campus and are within easy walking distance of classrooms, laboratories, the library, and the Activity Center.

Residence halls at NIACC have 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 bed linens, 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 have earned a 2.5 GPA or better and have demonstrated the ability to live with three other similarly qualified individuals. NIACC Dormitories has twelve 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. NIACC Dormitories reserves the right to determine which Dormitory residents will reside in the NIACC apartments.

Food service, located in a commons area, provides the student 19 meals 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 1999-2000 college year are as follows:*

Application Fee (nonrefundable).....	\$25
Breakage Deposit (refundable).....	\$50

Room and Board	
First Semester	\$1,609
Second Semester	\$1,609

*These fees are subject to change.

The NIACC Dormitories are handicapped accessible.

Requirements to Live in Student Housing

Full-time freshmen students of North Iowa Area Community College shall reside in the dormitories located adjacent to the campus. 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.

For this purpose, a student enrolled for 12 or more credit hours at the commencement of an academic term shall be deemed a full-time student.

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.

A list of off-campus rooms and apartments may be obtained at the Dormitory Office or the College switchboard in the Administration Building. The arrangements for off-campus housing are made directly with the owner. NIACC does not evaluate the quality of housing.

STUDENT SENATE ACTIVITIES

Clubs, Organizations, and Activities

The North Iowa Area Community College sponsors a wide variety of student organizations and activities. All student activities and the social calendar are to be coordinated through the Office of the Vice President for Student Services and the Student Senate Office.

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, fund raisers, and state and national conferences.

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.

BACCHUS

Boost Alcohol Consciousness Concerning the Health of University Students (BACCHUS) promotes developing responsible habits, attitudes, and lifestyles regarding alcohol and related issues. As a member of BACCHUS, your activities might include National Awareness Week, a Red Ribbon Campaign, and peer education.

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.

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.

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.

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 an opportunity to participate in a sport of their 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.

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.

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.

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 and 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.

OK House

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

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.

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.

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 Senate

If you're interested in government, the Student Senate is a great way to get involved. Student Senators, who receive one semester hour of credit each term, attend statewide leadership conferences and student senate

retreats, lobby at the state capitol in Des Moines, and represent the student body on various decision-making committees. They also plan most of the campus entertainment, including comedy club, movie nights, lectures, dances, games, singers, talk shows, cultural celebrations, and more.

Theatre Club

The club takes trips each year to see professional productions and attends the Mid-America Theatre Conference. The Club also offers a means for producing student work such as original scripts or student directed plays. The NIACC Theatre Department stages two major productions annually.

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 Services Fee Budget

The Student Services Fee Budget Committee, consisting of six members of the Student Senate, three faculty members and two members from the administration, meet with the various clubs and organizations and hear their requests. The budget is established in April for the subsequent year. The following budget has been approved by the Student Services Fee Budget Committee for 1999-2000:

ORGANIZATION BUDGET

Admissions/Orientation	\$ 3,000
Art Club	\$ 900
BACCHUS	\$ 500
Environmental Student Affairs	\$ 300
Forum Club	\$ 800
Health Services.....	\$ 3,500
Intercollegiate Athletics	½ of
Student Services Fees	
Intramurals	\$5,000
Karate Club	\$ 300
LOGOS	\$ 8,000
Math Club.....	\$ 400
Multicultural Student Union	\$ 1,000
Music, Instrumental.....	\$ 1,800
Music, Vocal.....	\$ 1,800
Nursing Club	\$ 1,000
Physical Therapy Assistant Club	\$ 700
Theatre Club	\$ 1,500

The remainder of the Student Services Fee is retained by the Student Senate for leadership development, student government, and general student activities programming.

EMPLOYMENT AND CAREER SERVICES

The NIACC Employment and Career Services Office (Activity Center, Room 209) assists students and graduates seeking employment by maintaining a current listing of full-time and part-time job opportunities. Other services include: (1) computerized resume/registration service; (2) job hotline (24 hours a day); (3) Job Seeking Skills course (1 s.h. credit); (4) individualized job seeking skills assistance, i.e. resume preparation, application procedures, cover letters, and preparation for successful interviewing; (5) scheduling and coordination of on-campus interviews/job fairs; (6) Career Resource Center including employer files, occupational briefs, video tapes on various areas of job seeking skills and company information; and, (7) annual placement report of career graduates.

The Employment and Career Services Office also assists students with career planning through the use of a computerized career planning and guidance system. This system is available in the Career Resource Center (Activity Center, Room 209).

The Employment and Career Services Office does not guarantee students or graduates employment. Rather, the Employment and Career Services should be viewed as another avenue to follow in seeking satisfactory employment.

While companies are invited to send interviewers to the campus during the year, all students and graduates should investigate the integrity of these companies before accepting employment. The Employment and Career Services Office does not necessarily endorse interviewing companies.

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 Employment and Career Services Office at 515-422-4370.

ACADEMIC/ DISCIPLINARY POLICY

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 one-time-only option. If a student experiences difficulty in a new program or subsequent semester, he/she may not 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. **All courses** within the requested fresh start term would be amended, if approved.
5. Courses are not 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.

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 is 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.

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 or 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.

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, readress 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 staff 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. If a faculty committee member is the instructor whose assignment of a grade is being appealed, then the Vice President for Academic Affairs will appoint a substitute faculty member to the committee in place of that instructor. If

a student committee member is appealing a grade, then the majority of officers of the Student Senate will select an alternate student committee member.

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 any disciplinary action other than 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.
 - 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 on college property.
 - 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 on college property.
 - 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 not less than three class days after the date of service. 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 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 2.0 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 informal 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.

COLLEGE SERVICES

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-Thursday7:45 a.m. to 6:30 p.m.
Friday7:45 a.m. to 4:15 p.m.

Summer Hours: May 8-August 18, 2000

Monday-Thursday7:45 a.m. - 5:00 p.m.
Friday7:45 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 Thursday7:45 a.m.-6:30 p.m.
Friday7:45 a.m.-4:15 p.m.

Contact the Counseling Center to schedule an evening appointment.

Financial Aid Office Hours

Monday - Friday7:45 a.m.-4:15 p.m.

Records Office Hours

Fall and Spring Semesters

Monday - Thursday7:45 a.m.-6:30 p.m.
Friday7:45 a.m.-4:15 p.m.

Summer Hours: May 8-August 18, 2000

Monday -Friday7:45 a.m. - 4:15 p.m.

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.

Charles City

Bus service is available between the campus and Charles City, Monday through Friday at a cost to students of \$1.50 one way or \$3.00 round trip. You need to call (515)228-7177 at least 24 hours prior to the day you wish to ride.

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 26,000 general volumes, 4,000 reference volumes, 15,000 nonbook media items, and 47,000 government publications. Subscriptions include nine national newspapers, 33 NIAD area newspapers, and 380 periodicals with ten-year holdings of most titles. Also available are files containing up-to-date pamphlets, career information, and social concerns materials.

A professional staff of two full-time librarians and one part-time librarian, assisted by three full-time assistants, and four 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. A library handbook is also available.

A typewriter and various types of audiovisual equipment are available for use in the library. Copying services are provided at a minimal cost.

The library is connected by computer to over 18,000 libraries across the country via the OCLC interlibrary loan system. This brings the libraries of the United States to NIACC students. A number of health-related databases are searchable through the Iowa Health Information Network. The library subscribes to several full-text data bases on the World Wide Web, including EBSCO Academic Search, Newsbank Newswire, and the Encyclopedia Americana. They can be accessed through the library's Web page. CD-ROM databases are available such as the Des Moines Register, ERIC, and various government documents. Several encyclopedias and the Oxford English Dictionary are also available on CD-ROM. Cooperative agreements with other Iowa community colleges and area libraries provide additional sources of information.

Four workstations provide access to Internet resources on the World Wide Web.

The library's on-line public access catalog (OPAC) is available to students from five terminals in the library. The circulation system is also automated.

The library continues to implement the utilization of new technologies to meet the information needs of NIACC students. Future plans include creation of a CD-ROM network to provide access to some of the library's CD-Rom resources via the campus network.

When is the Library Open?

Fall and Spring Semesters

Monday - Thursday7:30 a.m. - 9:00 p.m.
Friday7:30 a.m. - 5:00 p.m.
Saturday10:00 a.m. - 4:00 p.m.

Summer School

Monday - Thursday7:15 a.m. - 8:00 p.m.

Friday.....7:15 a.m. - 4:15 p.m.

Closed Saturday

Vacations

Monday - Friday7:45 a.m. - 4:15 p.m.

Closed Saturday

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 Information Desk in the Administration Building and/or the Athletic Office in the Activity Center.

Cafeteria

Hours

Academic Year

Monday - Thursday7:00 a.m. - 3:00 p.m.

Friday.....7:00 a.m. - 2:30 p.m.

Evening Hours

Monday and Thursday5:00 - 8:30 p.m.

Summer Hours

Monday - Friday9:00 a.m. - 12:30 p.m.

College Book Store, Activity Center

Hours

May 10 - August 209:00 a.m. - Noon

August 23-268:30 a.m. - 3:00 p.m.

August 27.....8:30 a.m. - 6:00 p.m.

August 30.....8:00 a.m. - 7:00 p.m.

January 178:00 a.m. - 7:00 p.m.

REGULAR BUSINESS HOURS

8:30 a.m. - 3:00 p.m. Monday - Friday

Book Store Additional Evening Hours

August 31.....5:00 - 7:00 p.m.

September 6 - LABOR DAYCLOSED

September 1, 2, 7, 8, 95:00 - 7:00 p.m.

January 18, 19, 20,

24, 25, 26, 275:00 - 7:00 p.m.

The Book Store is closed on holidays and weekends.

Check the Bookstore Website at www.netconx.net/~niaccbooks for complete information.

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.)

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.

NIACC security patrol the parking lots. 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 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 18 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 below 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	Sign-on
KLSS	Mason City	106.1 FM	
		1010 AM	24 hours
KRIB	Mason City	1490 AM	24 hours
KGLO	Mason City	1300 AM	4:58 a.m.
KIA	Mason City	93.9 FM	4:58 a.m.
FOX	Mason City	103.1 FM	4:58 a.m.
KCMR	Mason City	97.9 FM	6:00 a.m.
KCHA	Charles City	96 FM	
		1580 AM	6:00 a.m.
KCZY	Osage	92.7 FM	6:00 a.m.
KLMJ	Hampton	104.9 FM	5:15 a.m.
KIOW	Forest City	107.3 FM	4:45 a.m.
KY	Northwood	102.7 FM	5:00 a.m.
KRIT	Clarion	96.9 FM	24 hours
KUNY	Cedar Falls	91.5 FM	24 hours
			(4:59 a.m. Monday)
KAUS	Austin	100 FM	
		1480 AM	24 hours
			(5:30 a.m. Monday)
KIMT	Mason City	-TV Channel 3	6:00 a.m.
KAAL	Austin	-TV Channel 6	6:00 a.m.
WOI	Des Moines	-TV Channel 5	4:30 a.m.
KGAN	Cedar Rapids	-TV Channel 2	

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. 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.

4. 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.

5. 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.

6. 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.

7. 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.

Disposal Containers

Needle disposal containers are located in the following men's and women's restrooms:

- Activity Center 100
- Activity Center East Hall
- Activity Center Training Room
- Conference Center 180
- McAllister Hall First Floor
- Administration Building
- Murphy Technology Center
- Dormitories - Main Floor
- Charles City Campus

Staff

PRESIDENT

David Buettner President; 1981
B.S., Southern Illinois University; M. Ed., University of Illinois; Ph.D., Ohio State University.

Linda See, Office Manager; 1968
Graduate, Hamilton Business College; A.A., North Iowa Area Community College.

ACADEMIC AFFAIRS

Michael Morrison Vice President for Academic Affairs; 1989
A.A., Austin Junior College; B.A., M.A., and Ph.D., University of Minnesota.

Patrick Kennedy, Assistant to the Vice President for Academic Affairs; 1998
B.S., Bowling Green State University; M.A. and Ph.D., University of Illinois.

Ronda Smith, Administrative Assistant; 1995
Diploma, Spencer School of Business; A.A., North Iowa Area Community College. Additional course work at Mankato State University 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.

Laura Schurtz Agriculture Instructor/ADC Team Member; 1997
A.A., North Iowa Area Community College; B.A., Buena Vista 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.

Mary Pat Cole Human Relations, 1990
B.A., University of Northern Iowa; M.S.E., Drake University. Additional course work at Iowa State University and Drake University.

Michael Dirksen, Information Systems Technology; 1988
B.A., Augustana College; B.S. and M.S., Mankato State University.

Juanita Hanson, Accounting Program Leader/Instructor; 1985
B.A., Buena Vista; M.S.E., Drake University. Additional course work at University of Northern Iowa and Drake University.

Lawrence Hibbs, Retail Management Program Leader/Instructor; 1981
B.A. and M.A., University of Northern 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.

Jeanne McCurnin Office Technology; 1990
B.S., Moorhead State University.

Victoria Miller Office Technology Instructor, West Hancock Medical Assistant Hub (P/T); 1999
Diploma, Iowa Central Community College; A.A., North Iowa Area Community College. Additional course work at Iowa State University.

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; 1972
A.A., Ellsworth Junior College; B.A., University of Northern Iowa; M.A., University of Northern Colorado.

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.

Mary Davenport, Physical Therapist Assistant Program Leader; 1994

B.S., Iowa State University; Certificate P.T., University of Iowa, Iowa 01213; M.A., University of Iowa. Additional course work at University of Northern Iowa and University of Iowa.

Laurie DeGroot, Practical Nursing; 1998

A.A., North Iowa Area Community College; B.S.N., University of Iowa; A.R.N.P., Iowa I-061231; M.S.N., Winona State University; Certified Clinical Nurse Specialist in Gerontological Nursing. 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, Practical Nursing/Associate Degree Nursing; 1985

B.S.N., University of Iowa; A.R.N.P., F.N.P., Iowa A-073325; M.S.N., Mankato State University, F.N.P. 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. Additional course work at University of Iowa, University of Northern Iowa, Marycrest College, and Clarkson College; R.N.

Cynthia Fullerton, Associate Degree Nursing (P/T); 1992

B.S.N., Texas Woman's University; R.N., Iowa 084050. Additional course work at Mankato State University.

Sarah Hejlik, Clinical Instructor, West Hancock Medical Assistant Hub (P/T), 1999

A.D.N., North Iowa Area Community College. Additional course work at Central University of Iowa.

Suzanne Murphy, Clinical Nursing Instructor (P/T), 1998

L.P.N., Mercedian School of Practical Nursing; A.D.N., North Iowa Area Community College.

Carol Patnode, Physical Therapy 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. Additional course work at University of Iowa and University of Northern Iowa.

Patricia Smith, Optometric Assistant Program Leader; 1985

B.S., Simpson College. Registered Optometric Technologist A.O.A.; A.B.O. Certified Optician. Additional course work at the University of Northern Iowa, Morningside, University of Iowa, and Marycrest College.

Elizabeth Staudt, Associate Degree Nursing; 1987

Mercy Hospital School of Nursing; R.N., 032804; B.S.N., University of Dubuque; M.S.N., Drake University. Additional course work at University of Northern Iowa, University of Iowa, Marycrest College, and Morningside College.

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.

Patricia Zwanziger, Clinical Nursing Instructor (P/T); 1997

A.D.N., North Iowa Area Community College; B.S.N., University of Dubuque; M.S.N., Winona State University.

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.

Kelly Aikin, Communication Skills; 1999

B.A., William Jewell College; M.A., Southwest Texas State University; M.A., Jacksonville State University.

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 Instructor; 1997

B.A., Georgetown College; M.A., Tulane University; M.A., Comparative Literature, University of Chicago.

Patricia Crail, Spanish; 1982

B.A., University of Wisconsin; M.A., Northwestern University. Certificate of Studies, Sorbonne (Paris). Additional course work at Mankato State University and University of Northern Iowa.

Robert Davis, Vocal Music Director; 1974
B.M.E., Parsons College; M.M.E., Drake University.
Additional course work at Drake University.

Carol Faber, Visual Arts; 1991
B.A., Morningside College; M.A., 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 Instructor; 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 Interna-
tional University (Heidelberg); M.A. (TEFL) University of
Northern Iowa. Additional course work at State Univer-
sity of New York at Binghamton, State University Col-
lege 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 North-
ern 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.

Richard Schinnow, Communication Skills; 1987
B.A., Whitworth College (Spokane, Washington); M.A.,
University of Oregon. Additional course work at Gon-
zaga University and SUNY at Stony Brook.

Geraldine Schwarz, Reading and Literature; 1986
B.A. and M.A., University of Northern Iowa. Additional
course work at University of Northern Iowa and Univer-
sity 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

Keith Byman, Division Head; 1991
B.A., North Dakota State University; M.S., University of
California, Berkeley.

Linda Engebretson, Secretary; 1998
Graduate, Mankato Commercial College. Additional
course work at North Iowa Area Community College.

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; 1966
A.A., North Iowa Area Community College; B.T., Uni-
versity of Northern Iowa. Additional course work at NSF
Institute at the University of Illinois, Iowa State Univer-
sity, and Milwaukee Area Technical College.

Gary Eckholt, Manufacturing Technology; 1997
A.A.S., Kirkwood Community College (CNC), E.M.T.A.
License, Northwest Iowa Community College.

Brent Fischer, Mechanical Design Technology; 1998
B.S., Iowa State University; M.S., Iowa State University.

Gary Forbess, CNC Manufacturing Instructor; 1997
B.S., State University of New York.

Harold Kuppinger, Electronics; 1979
A.A.S., North Iowa Area Community College, B.A.,
Buena Vista University. Additional course work at Pur-
due University, University of Northern Iowa, and U.S.
Steel Training Facility.

Andrew Livin, Manufacturing Technology, 1998
A.A.S., Kirkwood Community College (CNC).

Mark Poppe, Automotive Services; 1996
B.S., University of Wisconsin-Stout; Associate of Occu-
pation Studies Degree, Universal Technical Institute.

Richard Reeve, Automotive Services, 1998
Course work at Iowa State University.

Mitchell Roose, Electronics; 1996
B.S., University of Iowa; M.B.A., University of Iowa.

Clifford Salmons, Electronics; 1981
A.A.S., North Iowa Area Community College; B.A., Uni-
versity 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 Uni-
versity.

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.

Keith Byman, Engineering; 1991

B.A., North Dakota State University; M.S., University of California, Berkeley.

Joseph Chimeno, Chemistry; 1996

B.S., Lamar University; M.S., North Texas State University; M.A., University of Idaho. Additional course work at Oregon State University.

Edward Dobrzynski, Chemistry; 1986

B.S., Villanova University; Ph.D., Iowa State University. Additional course work at Johns Hopkins University.

Patrick Gallart, 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.A., University of Dubuque; M.S., Iowa State University.

Paul Hertz, Mathematics; 1998

B.S., Mankato State University; M.S., Iowa State University.

Ronald Jenkins, Biological Science; 1967

B.A., William Penn College; M.A., State University of South Dakota. Additional course work at Oklahoma State University, Texas A&M University, Northwestern State College, and Drake University.

Mark Kabele, Natural Science Associate, 1998

B.S., University of Wisconsin.

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.

John Ott, Mathematics; 1997

B.A., California State University; B.S., California State University; M.S., University of Nevada.

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.

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., Parson College; M.S., Drake University. Additional course work at Marycrest, Iowa State University, Kansas State, and University of Iowa.

Vic Vollrath, Physical Science; 1980

B.A., Buena Vista University; M.S.T., University of Missouri. Additional course work at University of Iowa, Iowa State University, Carleton College, University of Illinois, and Northwest Missouri State.

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.

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., University of Minnesota.

Jeff Platt, Psychology; 1997
B.A., St. Ambrose University; M.S., Iowa State University.

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

Robert Schlimgen, Dean; 1990
B.S., Southern State College; M.S., South Dakota State University; Ed. D., University of Nebraska.

Rita Foley, Office Manager; 1991
Course work at North Iowa Area Community College and Iowa State University.

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.

Joyce Wallace, Secretary; 1992

Community Education

Kathy Bobst, Hampton Community Education Coordinator; 1987
B.A. and M.A., University of Northern Iowa.

Barb Eisenmenger, Garner Community Education Coordinator; 1989
B.A., Buena Vista University; M.S., Iowa State University.

Marti Friest, Business and Community Coordinator; Family and Consumer Science Coordinator; Charles City and Osage Coordinator; 1992
A.A., North Iowa Area Community College; B.A., University of Northern Iowa. Additional course work at University of Northern Iowa.

Lavonne Hartman, Lake Mills Community Education Coordinator; 1987
B.A., Mankato State University. Additional course work at Mankato State University.

Lana Miller, Charles City Center Secretary; 1986
Course work at North Iowa Area Community College.

Regional Health Education Center

Marge Wasicek, Director; 1969
R.N., St. Mary's School of Nursing, R.N., Iowa; B.S.N., University of Dubuque; M.S., Iowa State University. Additional course work at University of Iowa.

Training & Development/Support Staff

Nancy Bair, Adult Area Coordinator - Industrial; 1996
B.A., University of Iowa. Additional course work at Marycrest College and Drake University.

Jody East, Economic Development Training Coordinator; 1992
B.S., Iowa State University, and M.S., Drake University.

Elizabeth Gales, Director of Business Leadership and Cultural Events; 1990
B.A., College of St. Catherine.

John Schladweiler, Computer Training Coordinator; 1990
B.S., South Dakota State University; M.B.A., Mankato State University. Additional course work at University of Iowa.

Developmental Education

Ann-Morrison (Tucki) Folkers, Director; 1976
B.A., University of Iowa; M.S., Iowa State University; Developmental Education Certification, Appalachian State University.

Jeanette Armstrong, Secretary; 1989
A.S.B. and A.A., North Iowa Area Community College. Additional course work at University of Iowa.

Ray Carver, Lead Instructor-North Iowa Alternative High School; 1996
B.F.A., Drake University.

Kay Haugen, Independent Study Lab Associate; 1978
Diploma, North Iowa Area Community College.

Marty Lundberg, ABE/Basic Skills Coordinator; 1989
B.A., University of Iowa; M.S., Iowa State University. Additional course work at University of Northern Iowa and University of Iowa.

Mary Miller, Independent Study Lab Associate; 1990
Course work at University of Northern Iowa.

Lori Nelson, Independent Study Lab Instructor; 1985
B.A., University of Northern Iowa; M.S., Iowa State University. Additional course work at Drake University.

Karmen Shriver, ABE/Literacy Coordinator; 1989
B.A., University of Iowa; M.S., Iowa State University.
Additional course work at University of Northern Iowa.

Deborah Sykes, Lead Instructor-New Horizons Alternative High School; 1997
B.S., Northwest Missouri State University.

Lee Weber, Independent Study Lab 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

Don Kamps, Learning Services Director and Evening Dean; 1972
B.S., Mankato State University; M.A. and Ph.D., University of Iowa.

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.

Kim Kraus, Library Circulation Assistant; 1984
Course work at Hamilton Business College and North Iowa Area Community College.

Joyce Navratil, Library Associate II; 1994
Course work at North Iowa Area Community College.

Angie Schaper, Associate Librarian; 1998
B.A., University of Northern Iowa; M.A., University of Iowa. Additional course work at Central College.

Tech Prep

Nelson Crabb, Director; Secondary Career Programs; 1994
B.S., Iowa Wesleyan College; M.S., Iowa State University. Additional course work at Iowa State University.

Fran DeGroot, 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.

Denise Brooks, Secretary/Receptionist; 1987
Diploma, Hamilton Business College.

Mary Cole, Secretary; 1988
Diploma, American Institute of Business. Additional course work at Des Moines Area Community 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.

Paul Hartzel, Auditorium Technician; 1998
B.S., Southwest State University. Additional course work at St. Cloud State University and the University of Nebraska.

Jerry White, Auditorium Technician; 1980

Business Office

Kathy Grove, Accountant/Business Office Manager; 1977
A.A., North Iowa Area Community College. Additional course work at Iowa State University.

Mindy Eastman, Accounting Technician; 1990
A.A., North Iowa Area Community College.

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 Receivable; 1989
A.S.B., Accounting Diploma, Accounting Clerk Diploma, North Iowa Area Community College.

Tammy Moser, Accounts Payable Clerk; 1998
A.A.S., Iowa Lakes Community College.

Rhonda Nesheim, Bookkeeper/Secretary; 1996
A.S.B., North Iowa Area Community College.

Krystal Straughn, Business Office Clerk; 1998
Accounting Clerk with Computers Diploma and 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 and University of Iowa.

Physical Plant

Tony Pappas, Director - Physical Plant; 1983
Licensed Master Electrician — International Brotherhood of Electrical Workers. A.A., North Iowa Area Community College.

Lowell Nuehring, Supervisor, Dormitories; 1968

Don Smith, Supervisor of Buildings & Grounds; 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, Evening Custodial Leader; 1994
Journeyman Electrician, I.B.E.W. Additional course work at North Iowa Area Community College.

Bill Beach, Custodian/Room Set-Up Service; 1981

Joe Borger, Buildings and Grounds; 1987

Melvin Brady, Custodian/Room Set-Up Service; 1990

Theresa Cheever, Custodian/Room Set-Up Service; 1990
Course work at North Iowa Area Community College.

Loy Conn, Technical Systems; 1985
Course work at Iowa State University.

Mitzi DeGroot, Security; 1997
A.A., Ellsworth Community College; B.A., University of Northern Iowa.

Bill Dunn, Custodian/Room Set-Up Service; 1986
Course work at Hawkeye Institute of Technology.

Stanley Emerson, Buildings and Grounds; 1984
Course work at North Iowa Area Community College.

Dennis Felland, Custodian/Room Set-Up Service; 1995
Course work at Mesa Community College and Arizona State University.

Kathy Foster, Physical Plant Clerk; 1998
A.A., North Iowa Area Community College

John Funk, Custodian/Room Set-Up Service; 1980

Joe Herrera, Custodian/Room Set-Up Service; 1992
Course work at North Iowa Area Community College.

Phyllis Lauer, General Custodian; 1997
Certificate, Hibbing Junior College. Additional course work at University of Minnesota, Palomar Junior College.

Tim Meyer, General Custodian; 1998

Mitchell Olson, Technical Maintenance; 1995
A.A.S., Climate Control Technology.

John Pannhoff, Custodian/Room Set-Up Service; 1975

Lyle Pedersen, Custodian/Room Set-Up Service; 1995

Alvin Reiter, Custodian/Room Set-Up Service; 1977

Kay Schumaker, Custodian/Room Set-Up Service; 1991

Rusty Seidel, Buildings and Grounds; 1984
A.A., North Iowa Area Community College.

Larry Stange, Custodial/Maintenance; 1997
Course work at Buena Vista, North Iowa Area Community College.

Cheryl West, Set-Up Service Leader; 1976

Virgil West, General Custodian; 1996.

COMMUNITY RELATIONS

Tammy Hove, Director; 1989
A.A., North Iowa Area Community College; B.A. and M.B.A., University of Iowa.

Julia Deets, Community Relations Assistant; 1997
A.A., North Iowa Area Community College; B.S., Northwest Missouri State. Additional course work at University of Northern Iowa.

Linda Rourick, Campus Facility/ICN Scheduler; 1994
B.S., Iowa State University.

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.

INSTITUTIONAL ADVANCEMENT

Daryle Holbrook, Director of Institutional Advancement; 1995
B.A., University of Northern Iowa.

Cinda Rustad, Resource Development Coordinator; 1990
Diploma, Hamilton Business College.

Dana Heimbuch, Secretary/Administrative Assistant; 1998
A.A., North Iowa Area Community College

JOHN PAPPAJOHN BUSINESS AND ENTREPRENEURIAL CENTER

Douglas Morris, 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.

Economic Development

Kathy Showalter, Director of Economic Development; 1989

B.S., Iowa State University; M.S., Drake University. Graduate of the Institute for Organization Management, University of Colorado.

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.

Karla Hanson, Enrollment Specialist; 1994
A.A., North Iowa Area Community College; B.A., Buena Vista University.

Sandra Harrington, Secretary; 1981
Diploma, North Iowa Area Community College.

Steven Krafcsin, Admissions Representative; 1997
B.S., University of Iowa. Additional course work at University of North Carolina, Iowa State University, and Loras College.

Athletics

Jerry Dunbar, Athletic Director and Head Men's Baseball Coach; 1976
B.A., Fort Lewis College (Colorado). Additional course work at North Iowa Area Community College and University of Iowa.

Jody Fink, Secretary; 1985
A.S.B., North Iowa Area Community College.

Steven Krafcsin, Head 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.

David Tyner, Activities Coordinator; 1998
B.S. and M.S., Northwest Missouri State University.

Counseling/Academic Advising

Angie DeVries, Secretary; 1998
A.S.B., North Iowa Area Community College.

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.

Joyce Ruehlow, Academic Advisor; 1997
A.A., North Iowa Area Community College; B.A., University of Northern Iowa. Additional course work at University of Northern Iowa and Buena Vista University.

Jonnie Webster, Substance Abuse Prevention Counselor/Coordinator; 1996
B.A., University of Northern Iowa; M.A.E., University of Northern Iowa.

Housing

Jerry Dunbar, Director; 1976
B.A., Fort Lewis College (Colorado). Additional course work at North Iowa Area Community College and University of Iowa.

Clint Freese, Dormitory Security; 1997
A.A., Ellsworth Community College.

Renae Goodell, Dormitory Head Resident; 1993
B.A., Coe College.

Lynn Huber, Dormitory 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, Dormitory Head Resident; 1984
B.S., Peru State College; M.S., Northwest Missouri State University.

Sherry Zuke, Dormitory Secretary; 1978
A.A., North Iowa Area Community College. Additional course work at University of Iowa.

Employment and Career Services

Kay Field, Director, Employment and Career Services; 1990

A.A., Rochester Junior College; B.S., St. Cloud State University; M.Ed., Iowa State University. Additional course work at Drake University and Marycrest College.

Susan Steig, Secretary; 1978

Diploma, North Iowa Area Community College.

Registration and Financial Aid

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.

Mary Bloomingdale, Associate Director/Financial Aid; 1991

B.A., University of Iowa.

Carla Alexander, Financial Aid Secretary; 1995

Course work at University of Missouri.

Christine Hemann, Financial Aid/Records Office Secretary, 1999

A.S., North Iowa Area Community College.

Maryls Katuin, Records Office Secretary; 1979

Diploma, North Iowa Area Community College.

Michelle Petznick, Financial Aid Secretary; 1996

A.A., North Iowa Area Community College; B.A., University of Northern Iowa.

Sherrie Woods, Records Office Secretary; 1998

Diploma, North Iowa Area Community College.

Student Support Services Project

Terri Bonner Ewers, Director of Student Support Services Project; 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, and Iowa State University.

Jennifer Aydelotte, Secretary, 1998

Course work at North Iowa Area Community College.

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.

Dixie A. Holmes, Secretary; 1985

Diploma, American Institute of Business. Additional course work at North Iowa Area Community College and Waldorf College.

Workforce Development

Kathy Millard, Workforce Development Coordinator, 1983

A.A., North Iowa Area Community College; B.A., University of Northern Iowa.

TECHNOLOGY SERVICES

Bruce McKee, Director of Technology Services; 1991

B.F.A., University of Minnesota; M.A., University of Northern Iowa.

Steven Bendickson, Computer Technician; 1997.

Diane Bissig, Writing Analysis System Administrator/Programmer-Analyst; 1995

Diploma, Indian Hills Community College.

Gail Byre, Secretary; 1988

Course work at National School of Business.

Darrell Cain, Computer Technician; 1998.

Brian Charlton, Computer Lab Associate; 1999

A.A.S. Degree, Hamilton Business College; A.A. Degree, Iowa Central Community College.

Tom Crowley, Technology Specialist III; 1993

Electronics, Austin Vocational Technical Institute.

Jim Degen, Applications Programmer/Network Manager; 1989

A.A., North Iowa Area Community College; B.S., Iowa State University.

Judy DeRock, Media Production Specialist; 1987

A.A., North Iowa Area Community College.

Mark Greenwood, Director of Information Services; 1989

B.A., Central College.

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.

Dennis Klemas, Media/Computer Technician, 1998

A.A.S., North Iowa Area Community College.

Lois Spieker, Computer Operator; 1989

A.A., North Iowa Area Community College.

WORKFORCE DEVELOPMENT CENTER

Zoe Verchota, Manager; 1997
B.A., University of Iowa. Additional course work at Waldorf College; Dom Bosco Preparatory College, Brazil.

Job Training Partnership

Cynthia Abben, MIS Specialist; 1976
Diploma, Hamilton Business College.

Stacie Rogstad, Workforce Advisor; 1999
A.A., North Iowa Area Community College; B.A., University of Northern Iowa.

Mary Wallace Brown, Iowa Volunteer Mentor Program Coordinator, 1998
A.A., Indian Hills Community College; B.A., Buena Vista University.

Kimberly Caponi, Employment Training Specialist; 1997
B.A., Union College.

Shanan Redinger, Workforce Advisor; 1998
A.A., North Iowa Area Community College; B.S., Iowa State University

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.

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, Employment Training Specialist; 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.

Donna Petersen, Office Manager; 1983

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