

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. Within the natural science category, a student must select at least one mathematics and one science course.
- * To earn an **Associate in Science** degree, a student must complete a minimum general education core of 37 s.h. distributed in the following fashion: communications (8 s.h.); humanities and/or social science (9 s.h.); and natural science (20 s.h.). Within the natural science category, a student must select at least one mathematics and one science course.

- * To earn an **Associate in Science in Business** degree, a student must complete a minimum general education core of 20 s.h. distributed in the following fashion; communications (8 s.h.); humanities and/or social science (9 s.h.); and natural science (3 s.h.).
- * General education requirements for the **Associate in Applied Science** degree vary according to the major selected. Please consult with an advisor or a faculty member in the major field for further information.

Listed below are the general education course categories (communications, humanities, natural science, and social science), as well as those courses listed under the business and elective categories.

COMMUNICATIONS

| | | | |
|---------|-----------------------------------|---|------|
| 30:101 | Communication Skills I | 4 | s.h. |
| 30:101C | Communication Skills I | 3 | s.h. |
| 30:102 | Communication Skills II | 4 | s.h. |
| 30:102C | Communication Skills II | 3 | s.h. |
| 30:110 | Oral Interpretation of Literature | 3 | s.h. |
| 85:101 | Public Speaking | 2 | s.h. |
| 85:105 | Group Discussion | 2 | s.h. |

HUMANITIES

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|--------|---------------------------------------|-----|------|
| 10:100 | Encounters in Humanities | 2 | s.h. |
| 10:101 | Essentials of Art | 3 | s.h. |
| 10:102 | Art History I | 3 | s.h. |
| 10:103 | Art History II | 3 | s.h. |
| 10:112 | Art in the Elementary School | 3 | s.h. |
| 10:120 | Drawing | 3 | s.h. |
| 10:130 | Ceramics | 3 | s.h. |
| 10:150 | Creative Photography | 3 | s.h. |
| 10:151 | Intermediate Creative Photography | 3 | s.h. |
| 10:201 | 2-D Design | 3 | s.h. |
| 10:202 | Graphic Design | 3 | s.h. |
| 10:220 | Digital Illustration | 3 | s.h. |
| 30:110 | Oral Interpretation of Literature | 3 | s.h. |
| 30:111 | Introduction to Poetry/Drama | 3 | s.h. |
| 30:112 | Introduction to Short Story/Novel | 3 | s.h. |
| 30:121 | Introduction to Journalism | 3 | s.h. |
| 30:122 | News Writing and Reporting | 3 | s.h. |
| 30:201 | World Literature I | 3 | s.h. |
| 30:202 | World Literature II | 3 | s.h. |
| 30:203 | Minority Literature: African/American | 3 | s.h. |
| 30:204 | Minority Literature: American Indian | 3 | s.h. |
| 30:210 | Children's Literature | 3 | s.h. |
| 35:110 | Beginning Spanish I | 4 | s.h. |
| 35:111 | Beginning Spanish II | 4 | s.h. |
| 35:211 | Intermediate Spanish I | 4 | s.h. |
| 35:212 | Intermediate Spanish II | 4 | s.h. |
| 35:260 | Advanced Spanish I | 1-3 | s.h. |
| 35:261 | Advanced Spanish II | 1-3 | s.h. |
| 50:113 | Exploring Music | 3 | s.h. |
| 50:121 | Music Theory I | 4 | s.h. |
| 50:122 | Music Theory II | 4 | s.h. |
| 50:123 | Music Theory III | 4 | s.h. |
| 50:124 | Music Theory IV | 4 | s.h. |

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| 50:150 | Concert Chorus | 1 s.h. |
| 50:151 | Voice Ensemble (NIACC Singers) | 1 s.h. |
| 50:152 | Concert Band | 1 s.h. |
| 50:153 | Orchestra | 1 s.h. |
| 50:154 | NIACC Jazz Ensemble | 1 s.h. |
| 50:155 | Chamber Ensemble | 1 s.h. |
| 50:156 | Applied Music Vocal | 1-2 s.h. |
| 50:157 | Applied Piano | 1-2 s.h. |
| 50:158 | Applied Music Flute | 1-2 s.h. |
| 50:159 | Applied Music Oboe | 1-2 s.h. |
| 50:160 | Applied Music Clarinet | 1-2 s.h. |
| 50:161 | Applied Music Bassoon | 1-2 s.h. |
| 50:162 | Applied Music Saxophone | 1-2 s.h. |
| 50:163 | Applied Music Trumpet | 1-2 s.h. |
| 50:164 | Applied Music French Horn | 1-2 s.h. |
| 50:165 | Applied Music Trombone | 1-2 s.h. |
| 50:166 | Applied Music Euphonium | 1-2 s.h. |
| 50:167 | Applied Music Tuba | 1-2 s.h. |
| 50:168 | Applied Music Percussion | 1-2 s.h. |
| 50:169 | Applied Music Drum Set | 1-2 s.h. |
| 50:170 | Applied Music Guitar | 1-2 s.h. |
| 50:195 | Beginning Piano | 1 s.h. |
| 80:140 | American History to 1877 | 3 s.h. |
| 80:141 | American History 1877 to Present | 3 s.h. |
| 80:201 | Western Civilization to 1648 | 4 s.h. |
| 80:202 | Western Civilization from 1648 to Present | 4 s.h. |
| 80:210 | Introduction to Philosophy | 3 s.h. |
| 80:212 | Ethics | 3 s.h. |
| 85:150 | Introduction to Theater, TV, and Film | 3 s.h. |

NATURAL SCIENCES

| | | |
|---------|-------------------------------------|--------|
| 40:121 | Mathematics for Decision Making | 3 s.h. |
| 40:122 | Mathematics for Elementary Teachers | 3 s.h. |
| 40:125 | Quantitative Methods | 3 s.h. |
| 40:140 | Intro to Statistics | 3 s.h. |
| 40:151 | College Algebra and Trigonometry I | 4 s.h. |
| 40:152 | College Algebra and Trigonometry II | 4 s.h. |
| 40:161 | Precalculus | 4 s.h. |
| 40:240 | Calculus for Business | 3 s.h. |
| 40:251 | Analytic Geometry and Calculus I | 4 s.h. |
| 40:252 | Analytic Geometry and Calculus II | 4 s.h. |
| 40:253 | Analytic Geometry and Calculus III | 4 s.h. |
| 40:261 | Differential Equations | 3 s.h. |
| 70:100 | Introduction to Laboratory Science | 2 s.h. |
| 70:101 | Biological Principles | 3 s.h. |
| 70:102L | Biological Principles Lab I | 1 s.h. |
| 70:104 | Environmental Science | 3 s.h. |
| 70:105 | Biology I | 4 s.h. |
| 70:108 | Biology II | 4 s.h. |
| 70:109 | Microbiology | 4 s.h. |
| 70:110 | Health and Nutrition | 3 s.h. |
| 70:111 | Human Biology | 4 s.h. |
| 70:114 | Intro to Physical Science | 4 s.h. |
| 70:122 | Principles of Physics | 4 s.h. |
| 70:135 | General Chemistry I | 5 s.h. |
| 70:136 | General Chemistry II | 5 s.h. |
| 70:137 | Chemistry Principles I | 5 s.h. |
| 70:138 | Chemistry Principles II | 5 s.h. |
| 70:140 | Introductory Chemistry | 4 s.h. |

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| 70:149 | Kinesiology | 3 s.h. |
| 70:161 | Genetics | 4 s.h. |
| 70:182 | Astronomy | 3 s.h. |
| 70:200 | Nutrition | 3 s.h. |
| 70:249 | Urinalysis I | 3 s.h. |
| 70:250 | Anatomy and Physiology I | 4 s.h. |
| 70:251 | Anatomy and Physiology II | 4 s.h. |
| 70:260 | Quantitative Analysis | 4 s.h. |
| 70:272 | Fundamentals of Organic Chemistry | 3 s.h. |
| 70:273 | Organic Chemistry | 4 s.h. |
| 70:274 | Organic Chemistry I | 5 s.h. |
| 70:275 | Organic Chemistry II | 5 s.h. |
| 70:280 | General Physics I | 4 s.h. |
| 70:281 | General Physics II | 4 s.h. |
| 70:282 | College Physics I | 5 s.h. |
| 70:283 | College Physics II | 5 s.h. |

SOCIAL SCIENCES

| | | |
|--------|--|--------|
| 80:101 | General Psychology | 3 s.h. |
| 80:103 | Educational Psychology | 3 s.h. |
| 80:104 | Child Psychology | 3 s.h. |
| 80:110 | Sociology | 3 s.h. |
| 80:111 | Social Problems | 3 s.h. |
| 80:112 | Marriage and Family | 3 s.h. |
| 80:120 | Intro to American Government | 3 s.h. |
| 80:121 | American State & Local Govt | 3 s.h. |
| 80:122 | International Relations | 3 s.h. |
| 80:133 | Macroeconomics | 3 s.h. |
| 80:134 | Microeconomics | 3 s.h. |
| 80:135 | Personal Finance | 3 s.h. |
| 80:150 | Introduction to 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

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| 15:101 | Intro to Business | 3 s.h. |
| 15:107 | Keyboarding for Office Technology | 3 s.h. |
| 15:109 | Introduction to Accounting | 3 s.h. |
| 15:110 | Electronic Calculators | 1 s.h. |
| 15:112 | Keyboarding Level I | 1 s.h. |
| 15:113 | Keyboarding Level II | 1 s.h. |
| 15:114 | Computer Literacy | 1 s.h. |
| 15:118 | Accounting Procedures | 3 s.h. |
| 15:119 | Accounting Applications | 5 s.h. |
| 15:120 | Business Law I | 3 s.h. |
| 15:121 | Business Law II | 3 s.h. |
| 15:122 | Legal Office Procedures | 5 s.h. |
| 15:134 | Computer Applications | 3 s.h. |
| 15:136 | Advanced Document Processing | 3 s.h. |
| 15:140 | Intro to Computers and Information Systems | 3 s.h. |
| 15:141 | MIS I | 3 s.h. |
| 15:142 | Principles of Management | 3 s.h. |
| 15:144 | Principles of Supervision | 3 s.h. |
| 15:149 | Managing Human Resources | 3 s.h. |
| 15:150 | Accounting Principles I | 3 s.h. |
| 15:151 | Accounting Principles II | 3 s.h. |

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| 15:154 | Personal Income Tax | 4 s.h. | 15:285 | Multi-Layer Switching | 5 s.h. |
| 15:155 | Payroll Accounting | 3 s.h. | 15:286 | Network Support | 5 s.h. |
| 15:156 | Networking I | 4 s.h. | 15:287 | Emerging Remote Access Tech | 3 s.h. |
| 15:157 | Networking II | 4 s.h. | 15:288 | Network Design I | 3 s.h. |
| 15:158 | Networking III | 4 s.h. | 15:289 | Network Design II | 4 s.h. |
| 15:159 | Networking IV | 4 s.h. | 15:290 | Fundamentals of Project Management | 4 s.h. |
| 15:160 | Computer Accounting | 3 s.h. | 15:299A | Special Problems in Business | 1 s.h. |
| 15:161 | Operating Systems I | 3 s.h. | 15:299B | Special Problems in Business | 2 s.h. |
| 15:162 | Novell Administration | 4 s.h. | 15:299C | Special Problems in Business | 3 s.h. |
| 15:163 | Network Operating Systems | 4 s.h. | | | |
| 15:164 | Groupware Applications I | 4 s.h. | ELECTIVES | | |
| 15:165 | Groupware Applications II | 4 s.h. | 10:210 | Painting I | 3 s.h. |
| 15:166 | Inter/Intranet Application Management | 4 s.h. | 10:211 | Painting II | 3 s.h. |
| 15:167 | Network Security | 3 s.h. | 20:101 | Intro to Teaching | 3 s.h. |
| 15:168 | Introduction to Programming | 4 s.h. | 20:110 | Educational Measurement and Eval | 2 s.h. |
| 15:169 | Media Experience | 3 s.h. | 20:120 | Including Exceptional Students | 3 s.h. |
| 15:170 | Principles of Banking | 3 s.h. | 20:195 | Ed Media & Classroom Comp Tech | 3 s.h. |
| 15:171 | Introduction to Entrepreneurship | 3 s.h. | 25:110 | Orientation to Engineering | 0 s.h. |
| 15:172 | Managing the Entrepreneurial Venture | 3 s.h. | 25:111 | Engineering Problems with FORTRAN | 3 s.h. |
| 15:173 | Seminar in Entrepreneurship | 3 s.h. | 25:112 | Engineering Graphics and Design | 3 s.h. |
| 15:174 | Data Base Management | 3 s.h. | 25:231 | Statics of Engineering | 3 s.h. |
| 15:175 | Electronic Spreadsheets | 3 s.h. | 25:241 | Dynamics | 3 s.h. |
| 15:176 | Advanced Desktop Applications | 3 s.h. | 25:251 | Mechanics of Materials | 3 s.h. |
| 15:177 | Operating Systems II | 3 s.h. | 30:113 | LOGOS | 1 s.h. |
| 15:178 | Hardware Service and Support | 4 s.h. | 30:120 | College Reading Skills | 3 s.h. |
| 15:186 | Internet Programming I | 3 s.h. | 30:205 | Creative Writing | 3 s.h. |
| 15:187 | Internet Programming II | 3 s.h. | 40:120 | Intermediate Algebra | 4 s.h. |
| 15:188 | Web Server Development | 4 s.h. | 50:120 | Intro Music Theory | 2 s.h. |
| 15:190 | General Insurance | 3 s.h. | 60:112 | Scuba | 1 s.h. |
| 15:191 | Introduction to E-Commerce | 3 s.h. | 60:113 | Physical Fitness | 1 s.h. |
| 15:194 | E-Commerce Cases | 4 s.h. | 60:114 | Physical Fitness Lab | 1 s.h. |
| 15:195 | Property/Casualty Insurance | 3 s.h. | 60:115 | Games and Officiating I | 2 s.h. |
| 15:196 | Structure and Design | 3 s.h. | 60:116 | Games and Officiating II | 2 s.h. |
| 15:197 | Internet Law | 3 s.h. | 60:117 | Intro to Physical Education | 2 s.h. |
| 15:199 | Web Application Development | 3 s.h. | 60:118 | Care and Prevention of Athletic Injuries | 2 s.h. |
| 15:200 | Life, Health & Disability Insurance | 3 s.h. | 60:120 | Baseball (Intercollegiate) | 1 s.h. |
| 15:201 | Visual Communication | 3 s.h. | 60:121 | Basketball (Intercollegiate) | 1 s.h. |
| 15:202 | Web Design | 3 s.h. | 60:122 | Football (Intercollegiate) | 1 s.h. |
| 15:203 | Server Side Scripting | 4 s.h. | 60:123 | Golf (Intercollegiate) | 1 s.h. |
| 15:204 | Java | 4 s.h. | 60:127 | Softball (Intercollegiate) | 1 s.h. |
| 15:205 | Financial Planning/Employee Benefits | 3 s.h. | 60:128 | Volleyball (Intercollegiate) | 1 s.h. |
| 15:207 | Real Estate Prelicense | 3 s.h. | 60:150 | Theory, Ethics, and Professional Responsibilities of Coaching Interscholastic Athletics | 1 s.h. |
| 15:210 | Business Statistics | 3 s.h. | 60:152 | Intro to Anatomy and Physiology for Coaching | 1 s.h. |
| 15:211 | Word Processing | 2 s.h. | 60:153 | Human Development in Sports | 1 s.h. |
| 15:212 | Business Communication | 3 s.h. | 60:175 | Rape Education and Self Defense | 2 s.h. |
| 15:218 | Professional Office Procedures | 4 s.h. | 60:232 | First Aid and Personal Safety | 1 s.h. |
| 15:221 | Marketing | 3 s.h. | 70:112 | Animal Science | 3 s.h. |
| 15:222 | Principles of Advertising | 3 s.h. | 80:125 | Student Senate | 1 s.h. |
| 15:223 | Principles of Selling | 3 s.h. | 80:114 | Intro to Human Services | 3 s.h. |
| 15:230 | Money and Banking | 3 s.h. | 80:144 | American Indian History | 3 s.h. |
| 15:241 | Human Relations | 3 s.h. | 80:190 | Criminal Law I | 3 s.h. |
| 15:249 | Medical Transcription I | 3 s.h. | 80:191 | Criminal Law II | 3 s.h. |
| 15:250 | Basic Medical Insurance & Coding | 2 s.h. | 80:192 | Patrol Procedures | 3 s.h. |
| 15:251 | Medical Terminology I | 3 s.h. | 80:290 | Criminal Evidence | 3 s.h. |
| 15:252 | Medical Terminology II | 3 s.h. | 80:291 | Administration of Justice | 3 s.h. |
| 15:256 | Medical Transcription II | 3 s.h. | 80:292 | Criminal Investigation | 3 s.h. |
| 15:259 | Medical Office Procedures | 3 s.h. | 85:160 | Stagecraft | 3 s.h. |
| 15:265 | Medical Transcription III | 3 s.h. | | | |
| 15:277 | Network Routing | 5 s.h. | | | |
| 15:278 | Network Remote Access | 5 s.h. | | | |
| 15:280 | On-the-Job Training | 3 s.h. | | | |

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| 85:170 | Intro to Acting | 3 s.h. |
| 89:100 | Cooperative Work Experience | 1-5 s.h. |
| 89:120 | Individualized Educational Planning and Assessment..... | 1 s.h. |
| 89:150 | Employment Strategies | 1 s.h. |
| 89:151 | Academic Success Seminar..... | 2 s.h. |
| 89:152 | Career Decision Making | 2 s.h. |
| 89:153 | ACE-Action for College Education | 1 s.h. |
| 89:155 | Financial Management/Insurance Internship..... | 3 s.h. |
| 89:163 | Professions in Health | 2 s.h. |
| 89:164 | Nurse Aide Theory | 2 s.h. |
| 89:165 | Nurse Aide Clinical..... | 1 s.h. |
| 89:166 | Nurse Aide II..... | 3 s.h. |
| 89:170 | First Responder..... | 2 s.h. |
| 89:171 | Emergency Medical Technician Paramedic Part I..... | 6 s.h. |
| 89:172 | Emergency Medical Technician Paramedic Part II..... | 7 s.h. |
| 89:173 | Emergency Medical Technician Paramedic Part III..... | 3 s.h. |
| 89:174 | Emergency Medical Technician Paramedic Part IV | 3 s.h. |
| 89:175 | EMT-I..... | 4 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:

When I was younger, I could remember anything whether it had happened or not.

-Mark Twain

COURSE DESCRIPTIONS—COLLEGE TRANSFER PROGRAMS**Categories:**

| | |
|---------|--|
| 10..... | Art |
| 15..... | Business |
| 20..... | Education |
| 25..... | Engineering |
| 30..... | English |
| 35..... | Foreign Languages |
| 40..... | Math |
| 50..... | Music |
| 60..... | Physical Education |
| 70..... | Natural Sciences |
| 80..... | Social Sciences |
| 85..... | Speech & Theatre |
| 89..... | Experiential Learning, Electives, EMT, Nurse Aide, Study Abroad, and Enrich Program |

* **Special Problems credit 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. All courses are graded on a quality point basis unless designated as pass/no pass.

10 Art

10:100 Encounters in Humanities (2 s.h.) This course is designed to introduce students to the world of humanities; describe the humanities genres and disciplines; provide a systematic method of assessing humanities artifacts; present opportunities to assess humanities artifacts; define methods of participating in the humanities. Four humanities genres are represented with their respective disciplines. (15-30)

10:101 Essentials of Art (3 s.h.) An introductory course designed to give a better understanding of art as an important force in present-day living. Aims to develop an appreciation of art and creative thinking through lectures, readings, and visual aids. Experimentation with a variety of tools, techniques, and materials is a meaningful part of the course. Recommended for nonart majors. Entry-level course. (45-0)

10:102 Art History I (3 s.h.) The study of the development of the visual arts of western civilization including painting, sculpture, architecture, and crafts from prehistoric origins through Gothic. (45-0)

10:103 Art History II (3 s.h.) The study of the development of the visual arts of western civilization including painting, sculpture, architecture, crafts, and photography from the Renaissance through the twentieth century. (45-0)

10:112 Art in the Elementary School (3 s.h.) Prerequisite: 10:101, Essentials of Art, or permission of instructor to remove prerequisite. Recommended for elementary education majors. Artistic development of children, art instructional planning, art studio and response activities, field observations, 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 encour-

aged to cultivate his or her own visual vocabulary while working on photographic projects. (20-50)

10:151 Intermediate Photography (3 s.h.) Prerequisite: 10:150, Creative Photography. Emphasis on exploring photographic materials in the development of a personal vision. Technical subject covered: lighting, advanced printing, and camera techniques. Only offered spring semesters. (20-50)

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

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

10:210 Painting I (3 s.h.) Prerequisite: 10:201, Two-Dimensional Design; 10:120, Drawing; or 10:101, Essentials of Art. Beginning course planned to familiarize the student with the basic materials and tools of painting, the elements of pictorial organization, and the individual's creative development. Each student is encouraged to cultivate his or her own visual vocabulary. (45-0)

10:211 Painting II (3 s.h.) Prerequisite/Corequisite: 10:210, Painting I. Continuation of 10:210. Independent research, reading, and personal exploration of media and techniques. (45-0)

10:220 Digital Illustration (3 s.h.) Prerequisite: 10:201, Two-Dimensional Design. Recommended: 10:150, Creative Photography, or 10:202, Graphic Design. Creation and manipulation of digital imagery is explored in the context of creative

expression. User interactivity, animation, full-color printing, and computer art theories are covered. The student completes visual projects with instructor guidance. (30-30)

10:299A Special Problems in Art (1 s.h.) A course designed jointly by the student and the instructor to investigate a problem in art. Disciplined, advanced art students can select an area for research. With the instructor's approval and the consent of the Division Chair and Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. It is recommended that all other art courses available be completed before taking Special Problems. Course can be repeated for credit. (15-0)

10:299B Special Problems in Art* (2 s.h.) Same as 10:299A. (30-0)

10:299C Special Problems in Art* (3 s.h.) Same as 10:299A. (45-0)

15 Business

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

15:107 Keyboarding for Office Technology (3 s.h.) Prerequisite: 15:112, Keyboarding Level I, and/or 15:113, Keyboarding Level II, OR keyboarding skill of 30 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.) A basic understanding of the process of collecting and using financial information in a business. (45-0)

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

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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)

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15:118 Accounting Procedures (3 s.h.) An introductory course using a procedural approach applying the principles of debit and credit, recording of data in various journals, posting to the ledgers,

the worksheet, financial statements, adjusting and closing entries, depreciation and inventory methods, plant assets, deferrals and accruals. (45-0)

15:119 Accounting Applications (5 s.h.) Prerequisite: 15:109 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, filing, handling telephone services, discussing professionalism, applying grammar rules, and taking care of general office administration. Students are expected to spend time outside of class working in the computer lab. (60-30)

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

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

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

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

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

isfaction and organizational effectiveness; major control devices of management. (45-0)

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

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

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

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

15:154 Personal Income Tax (4 s.h.) Personal Income Tax is a course that is designed to provide the student with an in-depth study of the preparation of the individual income tax return. The course is designed to assist the student in

developing a broad understanding of the tax laws as they relate to the individual. The course content includes an examination of regulations pertaining to general tax return preparation and filing for an individual, the preparation of a variety of tax forms and schedules including the calculation of deductions and credits. Recent tax law changes are also examined. (66-0)

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

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

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

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

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

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

15:161 Operating Systems I (3 s.h.) 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. (30-30)

15:162 Novell Administration (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. (45-30)

15:163 Network Operating Systems (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. (45-30)

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. (45-30)

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. (45-30)

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. (45-30)

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. (30-30)

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. (45-30)

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

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

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

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

needs of the venture and understand the components of a business plan. (45-0)

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

15:174 Data Base Management (4 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. (45-30)

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 Operating Systems II (3 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, upgrade, troubleshoot and repair microcomputer hardware. This includes basic knowledge of desktop and portable systems, basic networking concepts, and printers. The student must also demonstrate knowledge of safety and common preventive maintenance procedures. Topics include advanced DOS and Windows concepts such as batch files and memory management, installing and uninstalling software, basic hardware installation, and troubleshooting. (30-60)

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

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

15:188 Web Server Development (4 s.h.) This course gives students a solid understanding of what is going on behind the scenes of a Web site and the Internet. Students will learn the concepts and components that make up Web servers along with the support of these Web servers. Topics such as planning, domains, configuration, testing, web protocols and services, recovery, security, log files, databases, indexing, CGI, ASP, JSP, clients, transactions, plug-ins, and SSL will be covered. The course will provide experience with popular web servers. (30-60)

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

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

15:194 E-Commerce Cases (4 s.h.) Investigate current E-Commerce basics and real life scenarios regarding electronic business practices. This capstone course will tie together previous E-Commerce courses to real life applications. (30-60)

15:195 Property and Casualty Insurance (3 s.h.) Prerequisite/Corequisite: 15:190, General Insurance. This course is designed to provide instruction that will provide a high level of understanding of property and casualty insurance. Topics covered include fire, homeowners, dwelling, auto, business and professional liability, crime and fidelity, worker's compensation, and applications from a personal and commercial perspective. (45-0)

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

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

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

15:200 Life, Health, and Disability Insurance (3 s.h.) Prerequisite/Corequisite: 15:190, General

Insurance. This course is designed to provide instruction in a variety of areas giving the student a good understanding of life insurance, health insurance, and the role and application of both within the industry. (45-0)

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

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

15:203 Server Side Scripting (4 s.h.) Prerequisite: 15:187, Internet Programming II. In this course, students will learn to develop and implement web applications using server side scripting with emphasis on a single language. Additional server side scripting languages and technologies will be discussed. Much of the languages object model and methods will be covered with focus on how to work with these objects and procedures. Students will gain hands-on experience while writing real world-based web applications from the ground up. Database basics will also be learned along with SQL. Simple

databases will be created for use with web application back-ends. Students will learn to access and modify their databases by building front-ends for them using server side scripting and embedded SQL. A lot of time will be spent building solutions that require ASP, HTML, JavaScript, and various other server side scripting technologies together. (30-60)

15:204 Java (4 s.h.) Prerequisite: 15:203, Server Side Scripting. This course introduces students to doing purely object-oriented programming using the Java syntax. Emphasis is placed on using Java for web development. Students learn how to create their own objects and employ these objects as solutions to common real world-based web problems using applications and applets. Students will learn to create interactive elements and simple GUI elements. Use of the java.awt components, event-handling model, containers, and layout managers will also be emphasized. File handling techniques and multithreading will be presented, along with JavaBeans. Applications and applets will be built from button up to facilitate in deeper understanding of the concepts used in OOP. (30-60)

15:205 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. (20-20)

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

15:218 Professional Office Procedures (4 s.h.) Prerequisite: 15:211, Word Processing; and 15:212, Business Communication. Office procedures and techniques necessary to perform general office duties. Includes using a word processor, developing transcription skills, filing, handling telephone services, discussing professionalism, applying grammar rules, and taking care of general office administration. Students are expected to spend time outside of class working in the computer lab. (45-30)

15:221 Marketing (3 s.h.) A study of the role of marketing in society as well as a study of target market (customer) determination and selection, product strategy, channels

of distribution, pricing concepts, and promotional activities that are used in business today. (45-0)

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

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

15:230 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.) The study of how people satisfy both personal growth needs and organizational goals in their careers. Although also interested in the why of human behavior, human relations goes further and looks at what can be done to anticipate problems, resolve them, or prevent them from happening. This field emphasizes knowledge that can be applied in practical ways to problems of interpersonal relations at work or in our personal life. Significant developments in recent years in the workplace have increased the importance of interpersonal skills in almost every type of work setting; these trends provide support for the necessity of acquiring competence in human relations. (45-0)

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

fices, hospital clinics, and hospital ancillary and support facilities. (15-60)

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

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

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

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

15:259 Medical Office Procedures (3 s.h.) Prerequisite: 15:211, Word Processing, and 15:212, Business Communication. Management of a medical office that includes preparing

correspondence and patient records, 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. (30-30)

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

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

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

15:280 On-the-Job Training (1-6 s.h.) On-the-Job Training is designed to provide a student an opportunity to apply his/her skills in a job setting. The On-the-Job experience is coordinated with an identified school coordinator and

on-site sponsor. This is repeatable credit for a maximum of 6 hours. (0-180)

15:285 Multi-Layer Switching (5 s.h.) Prerequisite: 15:159, Networking IV, or CCNA certification. This course leads to the CCNP or CCDP. In this course, network administrators learn how to build campus networks using multilayer switching technologies over high speed Ethernet. This course includes both routing and switching concepts, covering both Layer 2 and Layer 3 technologies. (45-60)

15:286 Network Support (5 s.h.) This course leads to the CCNP. This course teaches students how to baseline and troubleshoot an environment using Cisco routers and switches for multi-protocol client hosts and servers connected with the following: Ethernet and Fast Ethernet LANS, Serial, Frame Relay, and ISDN BRI WANs. The course provides students with methodical practice using specific Cisco IOS software and Catalyst software tools to diagnose and correct problems on widely installed Cisco Products. (45-60)

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

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

15:289 Network Design II (4 s.h.) This course leads to the CCDP certification. The CCDP certification (Cisco Certified Design Professional) indicates advanced or journeyman knowledge of network design. With a CCDP, a network professional can design routed and switched networks involving LAN, WAN, and dial access services for businesses and organizations with 100 to more than 500 nodes. (60-0)

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

15:299A Special Problems in Business* (1 s.h.) Students may submit a proposal for a special project to the instructor. With the instructor's approval and the consent of the Division Chair and Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project.

Course can be repeated for credit. (15-0)

15:299B Special Problems in Business* (2 s.h.) Same as 15:299A. (30-0)

15:299C Special Problems in Business* (3 s.h.) Same as 15:299A. (45-0)

20 Education

20:101 Introduction to Teaching (3 s.h.) An introductory course in teacher education. The place of the school in the community, the basic philosophy, the organization and administration, and the nature of the curriculum. Purposeful observations provide practical experience. (30-15)

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 Including Exceptional Students (3 s.h.) Prerequisite: 20:110, Educational Measurement and Evaluation; and 80:230, Human Growth and Development. An introductory discussion of issues and practices regarding the inclusion of diverse student populations in general education settings. Topics include integration, mainstreaming, and inclusion. Emphasis is placed on addressing the needs of all students, i.e. general education, special education, gifted, at risk, and multicultural. Formal and informal projects explore adaptive strategies for the curriculum, classroom, and social skill development. (45-0)

20:195 Educational Media and Classroom Computing Techniques (3 s.h.) The production and use of instructional media/computer technology and their

relationship to educational strategies. (30-30)

25 Engineering

25:110 Orientation to Engineering (0 s.h.) Designed to help freshmen better understand engineering and assist them in choosing their area of specialization. Presentations by guest engineers from industry who discuss their areas of the profession. Four field trips to a selected engineering department of North Iowa industrial firms. (Class meets one hour per week.) This course has been designated as a pass/no pass course. (10-8)

25:111 Engineering Problems with FORTRAN (3 s.h.) Corequisite: 40:151, College Algebra and Trigonometry I; or 40:161, Precalculus. Development of skills, standards, and orderly methods of solving engineering problems. SI and English measurement and unit conversion. Estimation and calculation with approximate numbers. Significant figures. Graphing and curve-fitting of technical data. Using logarithmic and trigonometric functions. Introduction to engineering economics and statistics. Solution of engineering problems using the FORTRAN language. (30-30)

25:112 Engineering Graphics and Design (3 s.h.) Prerequisite: 25:111, Engineering Problems with FORTRAN, with a grade of "C" or higher, or consent of instructor. The integration of fundamental engineering graphics, computer-aided design (CAD), and engineering design. The use and manipulation of drawing instruments; freehand lettering and sketching; machine and CAD drawing of orthographic views and isometric pictorials; and basic dimensioning. Techniques for visualizing, analyzing and communicating 3-D geometries. Application through creative design projects with written and oral reports. (15-75)

25:231 Statics of Engineering (3 s.h.) Prerequisite: 40:251 Ana-

lytic Geometry and Calculus I, with a grade of "C" or higher. Corequisite: 40:252 Analytic Geometry and Calculus II, and 70:282 College Physics I. Scalar and vector quantities, forces, moments of forces, couples, and force systems; equilibrium, centroids and centers of gravity; analysis of structures; internal forces, shear and bending moments; friction; moments of inertia of areas. (45-0)

25:241 Dynamics (3 s.h.) Prerequisite: 40:253, Analytic Geometry and Calculus III and 25:231, Statics of Engineering. Particle and rigid body kinematics, Newton's laws of motion, kinetics of plane motion, rigid body problems using work-energy, linear, and angular impulse-momentum principles, vibrations. (45-0)

25:251 Mechanics of Materials (3 s.h.) Prerequisite: 25:231, Statics of Engineering. Plan stress, plane strain, stress-strain relationships, and elements of material behavior. Application of stress and deformation analysis to members subject to centric, torsional, flexural, and combined loadings. Elementary considerations of theories of failure, buckling. (45-0)

30 English

30:090 Basic Writing (4 s.h.) A developmental writing course designed for students referred by orientation assessment or by instructors. Emphasis is on writing; students will learn strategies for recognizing and compensating for individual writing problems. Students complete the course by meeting the minimum entrance requirements for Communication Skills I. Credit earned will not satisfy the requirements for an Associate Degree and will not be used in calculating the cumulative grade point average for graduation. This course has been designated as a pass/no pass course. (60-0)

30:091 Developmental Writing (1 s.h.) Prerequisite: registration in 30:090, Basic Writing. Students will be allowed to register for Developmental Writing upon referral

from a Basic Writing instructor. This course has been designated as a pass/no pass course. (15-0)

30:095 Basic Reading (4 s.h.) A developmental reading course designed for students who test at less than a ninth grade reading ability on standardized tests. Emphasis is on practice in improving concentration, vocabulary, and methods of studying. Credit earned will not satisfy the requirements for an Associate Degree and will not be used in calculating the cumulative grade point average for graduation. This course has been designated as a pass/no pass course. (60-0)

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

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

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

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

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

30:110 Oral Interpretation of Literature (3 s.h.) Meets either Communications or Humanities requirement. Analyzing prose, poetry, and drama selections for their logical and emotional content, and learning platform techniques to present this material to an audience. (45-0)

30:111 Introduction to Poetry/Drama (3 s.h.) A study of selected works of poetry and drama as forms of literature. Discussion and writing emphasizing interpretation, critical analysis, and judgment/evaluation. (45-0)

30:112 Introduction to Short Story/Novel (3 s.h.) A study of selected works of fiction in the short story and novels as forms of literature. Discussion and writing emphasizing interpretation, critical analysis, and judgment/evaluation. (45-0)

30:113 LOGOS (1 s.h.) Students may contribute to the student news publication, LOGOS, for 1-4 credits during their enrollment at NIACC. Credit may be earned through practical experience in reporting, photography, advertising, and other production-oriented work. Staff members are required

to attend weekly staff meetings and meet a minimum number of contributions for a passing grade. (0-30)

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

30:121 Introduction to Journalism (3 s.h.) Introduction to Journalism is designed to help the student understand the role of the media in a democracy and how that role is accomplished. The student will also improve communication skills because the course stresses the fundamentals of news gathering, news writing, editing, and publication design. Students will have the opportunity to gain practical experience in news writing and interviewing. The course will stress print media. (45-0)

30:122 News Writing and Reporting (3 s.h.) Prerequisite: 30:121, Introduction to Journalism, and ability to type. News Writing and Reporting serves as a class designed to help the student improve his or her news gathering and reporting skills. Students will be expected to cover a regular news beat and write stories for publication in LOGOS, the student news publication. Students will be expected to conduct interviews and utilize the computer programs used by the paper. (45-0)

30:201 World Literature I (3 s.h.) Readings 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: American Indian (3 s.h.) Prerequisite: Communication Skills I. A study of the writings of major American Indians from precontact with Europeans to contemporary times. Legends, autobiographies, letters, speeches, poetry, novels and short stories will be studied as works of literature. Discussion and writing will focus on the critical analysis of the works. (45-0)

30:205 Creative Writing (3 s.h.) Prerequisite: A strong interest in writing and a background in literature is stressed before enrolling. A practical workshop in writing and rewriting manuscripts in preparation to publications. Emphasis on articles and short stories; individual instruction in poetry, novel, plays, or children's books. (45-0)

30:210 Children's Literature (3 s.h.) 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. Purposeful school visitations will provide practical experience. This course meets some education program requirements. (45-0)

30:299A Special Problems in Communications* (1 s.h.) Student may submit a proposal for special project. If instructor approves, and with the consent of the Division Chairperson and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeated for credit. (15-0)

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

30:299C Special Problems in Communications* (3 s.h.) Same as 30:299A. (45-0)

35 Foreign Languages

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

35:211 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 designed 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)

35:260A 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 - Spanish* (1 s.h.) Student may submit a proposal for a special project. With the instructor's approval and the consent of the Division Chair and Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeated for credit. (15-0)

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

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

40 Mathematics

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

Prerequisite: A score of 15 or higher on the Basic Mathematics Pretest. This is a basic mathematics course that will prepare students to compete in an entry-level math course and to use numbers effectively in other situations. Upon completion, students will be able to perform basic computational skills with whole numbers, fractions, decimals, percentages, and integers. 40:040 is a developmental course. Credit earned will not satisfy the requirements for an Associate degree and will not be used in calculating the cumulative grade point average for graduation. Students will be allowed to register in Basic Mathematics upon referral from the instructor and/or appropriate diagnosis. (60-0)

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

Prerequisite: Basic arithmetic skills as shown by one of the following: 1) a score of 49-100 on the COMPASS Pre-Algebra Test, a score of 1-51 on the COMPASS Algebra Test or a score of 16 or higher on the ACT math test; 2) a passing grade of "C" or better in Basic Mathematics. 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, radicals, the quadratic formula, square root manipulation, and application of concepts. Credit earned will not satisfy the requirements for an Associate degree and will not be used in calculating the cumulative grade point average for graduation. (60-0)

40:120 Intermediate Algebra (4 s.h.)

Prerequisite: Basic algebra skills as shown by one of the following: 1) a score of 51 on COMPASS Algebra test or 20 on the ACT Math Test and one year of high school algebra with a "C" or higher, or 2) successful completion "C" or higher) of Beginning Algebra (40:060). This course should prepare the student for college algebra and trigonometry or other course work that requires the same level of sophistication.

Topics include properties of real numbers, linear and quadratic equations, graphs of linear and quadratic equations, systems of equations, polynomials and rational expressions, inequalities, integral and rational exponents, radicals, and complex numbers. This course may not be used to satisfy core requirements. (60-0)

40:121 Mathematics for Decision Making (3 s.h.)

Prerequisite: Basic Arithmetic and Algebra skills as shown by one of the following: 1. A score of 16 or higher on the ACT Math Test, or a score of 49 or higher on the Pre-Algebra part of the COMPASS Test AND a grade of "C" or better in 40:060, Beginning Algebra (at NIACC) or equivalent; 2. A score of 20 or higher on the ACT Math Test or 51-75 on the Algebra section of the COMPASS test. Mathematics for Decision Making provides a survey of mathematics topics that includes sets, logic, probability, statistics, sets of numbers, algebra, geometry, and consumer math. This course will fulfill 3 hours of Natural Sciences requirement for the A.A. Degree. (45-0)

40:122 Mathematics for Elementary Teachers (3 s.h.)

Prerequisite: General Mathematics and Algebra skills as shown by one of the following: 1. A grade of "C" or higher in 40:121, Math for Decision Making or 40:120, Intermediate Algebra; 2. A score of 20 or higher on the ACT Math Test or a score of 51 or higher on the Algebra part of the COMPASS test AND successful completion ("C" or higher) of Algebra I and Geometry in high school. The course is specifically designed for elementary education majors. Topics include problem-solving strategies, sets, numeration systems, algebra, geometry, logic, calculators and computers, elementary probability and statistics. These topics are presented with a focus on their developmental theory. (45-0)

40:125 Quantitative Methods (3 s.h.)

Prerequisite: Two years of high school algebra with a "C" or higher or 40:120, Intermediate Algebra, with a "C" or better. This course provides a

sampling of applied mathematics topics from various disciplines. Some topics covered include elementary functions, linear systems, matrices, linear programming, set theory, probability, and Markov chains. (45-0)

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

Prerequisite: Two years of high school algebra with a "C" or higher or 40:120, Intermediate Algebra, with a "C" or higher. This course is intended to introduce students to basic statistical concepts. It covers descriptive and inferential statistical methods, hypothesis testing on the mean and proportion, Chi-square test for independence, and linear regression. Students are also introduced to technology as it applies to introductory statistical methods. (45-0)

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

Prerequisite: Two years of high school algebra with a "C" or higher or 40:120, Intermediate Algebra, with a "C" or higher. This course is intended for students majoring in business, social science, biological sciences, liberal arts, and those mathematics students with insufficient background to begin the study of calculus. The course studies a number of functions in detail, including their graphs and equations, inequalities, and applications based on the functions. These functions include linear, quadratic, and other polynomial functions, rational, root, and inverse functions, exponential and logarithmic functions, and the trigonometric functions. (60-0)

40:152 College Algebra and Trigonometry II (4 s.h.)

Prerequisite: 40:151, College Algebra & Trigonometry I with a "C" or higher. This course is a continuation of 40:151. Topics include the further study of trigonometric functions including their applications and inverses, study of vectors, complex numbers, DeMoivre's Theorem, systems of equations and inequalities, matrices, conic sections, parametric and polar equations, probability, sequences and series, and the Binomial Theorem. (60-0)

40:161 Precalculus (4 s.h.) Prerequisite: Two years of high school algebra with a "C" or higher and one year of geometry with a "C" or higher. This course is intended to provide students with a summary of mathematics topics needed to study analytic geometry and calculus. The functional approach is emphasized. Topics covered include fundamentals of algebra, polynomial, rational, exponential, logarithmic, and trigonometric functions, analytic trigonometry, systems of equations, analytic geometry of conics, sequences, and series. (60-0)

40:240 Calculus for Business (3 s.h.) Prerequisite: 40:161, Precalculus, with a grade of "C" or better, or equivalent. This course uses calculus techniques with an emphasis on applications to business, the social sciences, and the life sciences. Types of functions included in the course are polynomial, rational and root, exponential and logarithmic, and trigonometric. Topics include derivatives and their uses, and integrals and their applications. A graphing calculator is required. (45-0)

40:251 Analytic Geometry and Calculus I (4 s.h.) Prerequisite: Precalculus (40:161) with a "C" or higher, or both semesters of College Algebra and Trigonometry (40:151 and 40:152) with a "C" or higher, or two years of high school algebra with a "C" or higher and one year of high school geometry with a "C" or higher and at least one semester of precalculus or trigonometry with a "C" or higher. Topics include analysis of functions, limits, derivatives and integrals of algebraic, logarithmic, exponential, and trigonometric functions, and applications of differentiation. (60-0)

40:252 Analytic Geometry and Calculus II (4 s.h.) Prerequisite: 40:251, Analytic Geometry & Calculus I. This course is a continuation of 40:251. Topics include applications of the definite integral; principles of integration evaluation; improper integrals; modeling with differential equations; and infinite sequences and series. The availability of a graphing calculator is highly recommended. (60-0)

40:253 Analytic Geometry and Calculus III (4 s.h.) Prerequisite: 40:252, Analytic Geometry & Calculus II. This course is a continuation of 40:252. Topics include graphs and analysis of the conic sections, polar coordinates and parametric equations, three dimensional space, vectors and vector-valued functions, partial derivatives, multiple integrals, topics in vector calculus. (60-0)

40:261 Differential Equations (3 s.h.) Prerequisite: 40:252, Analytic Geometry and Calculus II. Topics include analytic methods for solving first and second order ordinary differential equations, higher order linear differential equations (including Laplace Transforms) and systems of differential equations, numerical methods for approximating solutions of differential equations, and applications using differential equations. (45-0)

40:299A Special Problems in Mathematics* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeated for credit. (15-0)

40:299B Special Problems in Mathematics* (2 s.h.) Same as 40:299A. (30-0)

40:299C Special Problems in Mathematics* (3 s.h.) Same as 40:299A. (45-0)

50 Music

50:113 Exploring Music (3 s.h.) 50:113, Exploring Music is concerned with the development of Western Classical music from 400 BC to the present. Encompassing nearly 2500 years, the course provides the student with knowledge of six historical eras through a variety of media such as lectures, recordings, live performance, and computer-enhanced instruction. (45-0)

50:120 Introduction to Music Theory (2 s.h.) Prerequisite: previous instrumental or vocal music experience. Introduction to Music Theory is designed as a precourse to any Music Theory sequence. The course work will emphasize the circle of fifths, major scales, all forms of the minor scales, parallel and relative scale relationships, and music vocabulary. This course will also introduce the aural skills of scale identification, rhythmic dictation, and interval identification. (22.5-15)

50:121 Music Theory I (4 s.h.) Prerequisite: Previous instrumental or vocal experience. Theory I examines all the basic materials of music which include notation, scales, intervals, chords, melody, harmony, rhythm, and texture. Other areas of analysis take in cadence types, chord inversions, figured bass harmonization, and principles of part writing based on eighteenth century models. This course introduces fundamentals of the aural skills, sight singing, and dictation. (45-30)

50:122 Music Theory II (4 s.h.) Prerequisite: Final grade of "C" or better in 50:121, Music Theory I, or instructor consent. A continuation of 50:121, Music Theory II will examine in more detail the harmonic element of music. Discussions will include the harmonic progression, modulation and specific types of seventh chords as they relate to eighteenth century counterpoint. Further development of aural skills and the introduction of basic keyboard skills are included in the course work. (45-30)

50:123 Music Theory III (4 s.h.) Prerequisite: Final grade of "C" or better in 50:122, Music Theory II, or instructor consent. 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: Final grade of "C" or better in 50:123, Music Theory III, or instructor consent. 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)

50:150 Concert Chorus (1 s.h.)

Performs in concert on campus, for area high school assemblies, and community meetings. Participates in music festivals. Course may be repeated for credit. (45-90)

50:151 Voice Ensemble - NIACC Singers (1 s.h.) Vocal work in small ensembles. Performance before school, civic, and community groups. Membership by audition only. Course may be repeated for credit. (0-60)

50:152 Concert Band (1 s.h.) The North Iowa Concert Band, sponsored by North Iowa Area Community College, rehearses one night each week in preparation for concerts and programs. Open to all interested NIACC students and adults in the North Iowa area. Course is repeatable for credit to a maximum of 4 credit hours. (20-0)

50:153 Orchestra (1 s.h.) The North Iowa Symphony Orchestra, sponsored by North Iowa Area Community College rehearses one night each week in preparation for concerts and programs. Open to all interested NIACC students and adults in the North Iowa area. Some sections of the orchestra require an audition. Course is repeatable for credit to a maximum of 4 credit hours. (20-0)

50:154 NIACC Jazz Ensemble (1 s.h.) The NIACC Jazz Ensemble rehearses two and a half hours each week in preparation for concerts on campus, for area high school assemblies, festivals, and community events. Concentration on jazz rep-

ertoire from 1930 to the present. Open to all interested NIACC students by audition. Course is repeatable for credit to a maximum of 4 credit hours. (30-0)

50:155 Chamber Ensemble (1 s.h.) Course is designed to provide an opportunity to study and perform chamber literature of the last three centuries. Groups may vary in size from duets to sextets for brass, woodwind, string, or percussion instrumentalists. Also includes jazz combos. Time arranged. Course is repeatable for credit to a maximum of 4 credit hours. (15-0)

Applied Music (1-2 s.h.) Prerequisite for 50:157, Piano: 1 credit hour of 50:195 or equivalent. Individualized instruction in vocal or instrumental performance through the development of strong technical foundation and well-rounded musicianship. Instructional materials include a repertoire of traditional and contemporary literature. Students may register for 1 credit hour (30-minute lesson per week) or 2 credit hours (60-minute lesson per week) each semester. Each course is repeatable for credit to a maximum of 8. Must have instructor consent for 2 credit hours. (7.5-15) or (15-30)

Applied Music courses include:

50:156 Voice
50:157 Piano
50:158 Flute
50:159 Oboe
50:160 Clarinet
50:161 Bassoon
50:162 Saxophone
50:163 Trumpet
50:164 French Horn
50:165 Trombone
50:166 Euphonium
50:167 Tuba
50:168 Percussion
50:169 Drum Set
50:170 Guitar

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

50:299A Special Problems in Music* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeated for credit. (15-0)

50:299B Special Problems in Music* (2 s.h.) Same as 50:299A. (30-0)

50:299C Special Problems in Music* (3 s.h.) Same as 50:299A. (45-0)

60 Physical Education

60:112 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.) Course may be repeated for credit. (40-160)

60:121 Basketball (1 s.h.) Course may be repeated for credit. (40-160)

60:122 Football (1 s.h.) Course may be repeated for credit. (40-160)

60:123 Golf (1 s.h.) Course may be repeated for credit. (10-60)

60:127 Softball (1 s.h.) Course may be repeated for credit. (40-160)

60:128 Volleyball (1 s.h.) Course may be repeated for credit. (40-100)

60:150 Theory, Ethics, and Professional Responsibilities of Coaching Interscholastic Athletics (1 s.h.) Guiding principles and techniques of coaching interscholastic athletics. Discussion of theory, ethics, and profes-

sional responsibilities as they relate to coaching interscholastic athletes. (20-0)

60:152 Introduction to Anatomy and Physiology for Coaching (1 s.h.) An introduction to anatomy and physiology with stress on the relationship to athletic actions. This course is designed as an introductory course for prospective coaches with little or no background in anatomy and physiology. (15-6)

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. (15-0)

60:175 Rape Education and Self Defense (2 s.h.) Rape Education and Self Defense is a course of study designed to introduce the participant to basic self-defense concepts and techniques, to heighten the participant's level of awareness and alertness in her environment, to provide participant with information about violent contexts, and to provide the participant with basic physical methods of self-defense. In general, this course cannot offer absolutes; however, the theory behind such a course rests in the concept that those armed with information and a few operational options stand a better chance of avoiding and, when avoidance fails, surviving violence. (30-0)

60:232 First Aid and Personal Safety (1 s.h.) Lecture-type course designed to give the layperson adequate first aid knowledge and skills with emphasis on accident prevention and recognition and treatment of common medical emergencies. (15-0)

60:299A Special Problems in Physical Education* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project.

Course may be repeatable for credit. (15-0)

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

70 Natural Sciences

70:100 Intro to Lab Science (2 s.h.)

Prerequisite: 30:101, Communication Skills I; 80:110, Sociology OR 80:101, General Psychology; 70:140, Intro to Chemistry; 70:250, Anatomy and Physiology I. This course familiarizes the student with the Medical Laboratory Technician program and the field of laboratory medicine. The organization and role of the clinical laboratory are explored, as well as medical ethics and conduct, employment opportunities, and professional opportunities. (30-0)

70:101 Biological Principles (3 s.h.)

Study of organismic biology including organization, metabolism, and reproduction of living systems. Includes evolutionary patterns, inheritance, growth, development, ecosystems, reproduction, and structure-function relationships among organisms. (45-0)

70:102L Biological Principles Laboratory (1 s.h.)

Prerequisite: Credit for 70:101 or current enrollment in 70:101. Biological Principles Laboratory. (0-30)

70:104 Environmental Science (3 s.h.)

The study of ecological principles and the interrelationships among populations, resources, and pollution in developing a sustainable society. Topics include: population, ecology, soil, water, land, air, and energy resources, plus air, water, soil, and waste management. Environmental decision-making strategies to resolve current and future environmental issues are stressed. (30-30)

70:105 Biology I (4 s.h.) Prerequisite/Corequisite: concurrent enrollment in 70:135, General Chemistry I, or 70:137, Chemistry Principles I, is strongly encouraged. Detailed study of the fundamental principles of biology. Includes study of cell structure and function, energy transfer, inheritance, evolution, and ecology. Course is intended for students majoring in biology or pursuing careers in the premedical or related fields which require an emphasis in biology. (45-30)

70:108 Biology II (4 s.h.) Prerequisite: 70:105, Biology I. The diversity of life. Characteristics, structures, and functions of the major groups of living organisms will be examined. (45-30)

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

70:110 Health and Nutrition (3 s.h.) The science of health and its application to the individual, home, community, and school. Elementary physiology, nutrition, dependency, and current health problems of national concern. (45-0)

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

70:112 Animal Science I (3 s.h.) This course is designed to provide 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. (45-30)

70:149 Kinesiology (3 s.h.) Prerequisite: 70:250, Anatomy and Physiology I; and 70:251, Anatomy and Physiology II. Provides a basic understanding of normal human body movement as related to skeletal, articular, neurological, and muscular systems. Levers, torques, center of gravity, base of support, and their relationship to balance, posture, and movement will be addressed. The student will learn anatomical palpations and the basics of human gait. (30-30)

70:161 Genetics (4 s.h.) Prerequisite: One term of biology or consent of instructor. The course is an introduction to basic modern genetics. It includes: the nature of the genetic material and how it is transmitted between generations; gene regulation and interactions; human genetics; genetic engineering, and its implications. (45-30)

70:182 Astronomy (3 s.h.) An introductory level, one-semester course for the nonscience major. Topics include a brief history of astronomy, the physics behind astronomy, the solar system, stars, and galaxies. Hands-on activities complement material in the text. (45-0)

70:200 Nutrition (3 s.h.) Prerequisite: three credit hours of inorganic chemistry. Physiology very helpful, but not essential. Introduces the scope of the science of nutrition and

its application to the nurse's role in promoting good nutrition throughout the life span. Principles of diet modification are presented as they relate to specific health problems. Nursing assessment, the patient's nutritional needs, and dietary planning are included. (45-0)

70:249 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. Course may be repeatable for credit. (15-0)

70:297B Special Problems in Biology* (2 s.h.) Same as 70:297A. (30-0)

70:297C Special Problems in Biology* (3 s.h.) Same as 70:297A. (45-0)

70:298A Special Problems in Chemistry* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeatable for credit. (15-0)

70:298B Special Problems in Chemistry* (2 s.h.) Same as 70:298A. (30-0)

70:298C Special Problems in Chemistry* (3 s.h.) Same as 70:298A. (45-0)

70:299A Special Problems in Physics* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be

given upon satisfactory completion of the project. Course may be repeatable for credit. (15-0)

70:299B Special Problems in Physics* (2 s.h.) Same as 70:299A. (30-0)

70:299C Special Problems in Physics* (3 s.h.) Same as 70:299A. (45-0)

80 Social Sciences

Note: All courses in this category do not meet the Social Science distribution requirement. See pages 155-158 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 survey course, sociology is the scientific study of society. Inquires into what holds societies together, what causes societies to change, and how social forces affect our daily lives. Topics covered include: culture and society, socialization, social research, groups, organizations, institutions, deviance, gender, race and ethnicity. An emphasis is placed on cultural diversity. (45-0)

80:111 Social Problems (3 s.h.) Prerequisite: 80:110, Sociology, is strongly recommended. Introduction to the study of contemporary social problems. The course examines how social problems are identified, explores underlying conditions and causes of social problems, and considers possible solutions and policy implications. Emphasis is on sociological and critical thinking frameworks. Topics of exploration include: mental illness, substance abuse, crime, prejudice and discrimination, prostitution, and poverty. (45-0)

80:112 Marriage and Family (3 s.h.) A survey of the family as a social unit in the modern American culture. A study is made regarding the creation of the American family from various cultures as well as the problems the family is subjected to such as sex relations, social roles, communication, finance, and divorce. (45-0)

80:114 Introduction to Human Services (3 s.h.) This course is designed to familiarize the student with the human services arena. Various employment opportunities are explored, as well as ethical, legal, political, and economic forces. (45-0)

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

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

80:122 International Relations (3 s.h.) An introductory course in international relations which offers an analysis of the structure and processes of world politics. Topics covered include the study of foreign policies, a survey of major problems in contemporary world affairs, and an examination of selected global issues. (45-0)

80:125 Student Senate (1 s.h.) Students learn organizational and leadership skills through participation in the NIACC Student Senate, student and college committees, and student activity programming. Each student will identify and carry out a project to demonstrate leadership skills including needs assessment, planning, budgeting, motivating volunteers, and evaluation. Course may be repeatable for credit. (0-30)

80:133 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. 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 American Indian History: Prehistory to Mid-20th Century (3 s.h.) Ethnographic, geographic, and historical survey of the social, cultural, and political systems developed by American Indians 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 Af-

rica/Southwest Asia, South Asia, East Asia, Southeast Asia and the Pacific World. (45-0)

80:160 Cultural Anthropology (3 s.h.) Prerequisite: Three of the following: Sociology, Psychology, Marriage and Family, Biology, Literature, or Genetics. This course embraces cultures from all continents; highlights major human subsistence patterns; and illustrates human adaptation to the environment, from the beginning of human history to the present. Individual studies enable students to experience cultures in-depth. The student's goal is to understand one's own culture from a historical perspective and to analyze the forces of today in terms of how those forces may affect the future of earth and mankind. (26-38)

80:190 Criminal Law I (3 s.h.) The philosophy and basis for law; the historical development of criminal law and procedures; the structure, definitions, and criminal laws of Iowa. Required course for Law Enforcement curriculum. (45-0)

80:191 Criminal Law II (3 s.h.) Required course for Law Enforcement curriculum. Covers the law of arrest, search, and seizure. A continuation of 80:190. (45-0)

80:192 Patrol Procedures (3 s.h.) Responsibilities, techniques, and methods of police patrol. Methods of traffic law enforcement, regulation and control; and fundamentals of traffic accident investigations. (45-0)

80:201 Western Civilization to 1648 (4 s.h.) A study of the major social, political, economic, cultural, and philosophical movements in the Western World from the beginning of civilization to 1648. (60-0)

80:202 Western Civilization 1648 to the Present (4 s.h.) A study of the major social, political, economic, and philosophical movements in the Western World from 1648 to the present. (60-0)

80:210 Introduction to Philosophy (3 s.h.) Introduces the student to the study of philosophy and teaches skills of critical thinking. The course examines the meaning and value of philosophy; human nature and the self; axiology – ethics and values (in search of the good life); social philosophy; freedom; individualism; philosophy and art; epistemology -- the nature of knowledge; truth; philosophy and science; metaphysics -- reality; philosophy and religion; the meaning of suffering and death; examination of decision making and self-discovery. (45-0)

80:212 Ethics (3 s.h.) This course is designed to develop objective thinking skills. The goal is to create a balance between moral principles when considering a variety of ethical issues. The emphasis will be on developing a moral stance that is workable in today's society. Issues include poverty, environment, animal rights, business, ethics, preferences in hiring, war, death penalty, abortion, euthanasia, parent-child relationships, sex, love, and marriage. (45-0)

80:230 Human Growth and Development (3 s.h.) A study of the physical, mental, emotional, and social growth of the person from infancy through adulthood. Discussions include the need for love, affection, and attention; the concept of ego and sense of identity; the need of human bonds; the value of interpersonal dialogue; the capacity to develop intelligence; and the socioeconomic/ethnic influences. (45-0)

80:290 Criminal Evidence (3 s.h.) The kinds and degrees of evidence and the rules governing the admissibility of evidence in court. Required course for Law Enforcement curriculum. (45-0)

80:291 Administration of Justice (3 s.h.) Arrest, search and seizure; review of court systems; procedures from incident to final disposition; principles of constitutional, federal, state, and civil laws as they apply to and affect law enforcement. Required course for Law Enforcement curriculum. (45-0)

80:292 Criminal Investigation (3 s.h.) Fundamentals of investigation, crime scene search and recording, collection and preservation of physical evidence, scientific aids, modus operandi, sources of information, interviews and interrogation, follow-up, and case preparation. (45-0)

80:299A Special Problems in Social Sciences* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. (15-0)

80:299B Special Problems in Social Sciences* (2 s.h.) Same as 80:299A. (30-0)

80:299C Special Problems in Social Sciences* (3 s.h.) Same as 80:299A. (45-0)

85 Speech & Theatre

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

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

85:150 Introduction to Theatre TV and Film (3 s.h.) A survey of dramatic theatre, television, and film. (45-0)

85:160 Stagecraft (3 s.h.) An introduction to the construction, painting, and shifting of stage scenery, including scene shop methods and maintenance. (45-40)

85:170 Introduction to Acting (3 s.h.) Basic principles of stage acting. Work in mime, monologue, and play cuttings to develop techniques of voice, gesture, movement, and characterization. (45-0)

85:299A Special Problems in Speech/Theatre* (1 s.h.) Student may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. Course may be repeatable for credit. (15-0)

85:299B Special Problems in Speech/Theatre* (2 s.h.) Same as 85:299A. (30-0)

85:299C Special Problems in Speech/Theatre* (3 s.h.) Same as 85:299A. (45-0)

89 Experiential Learning, Electives, EMT and Nurse Aide

89:100 A-B-C-D-E Cooperative Work Experience (1-5 s.h.) Practical training on the job under the cooperative supervision of the college and work supervisor. Designed primarily for the college transfer students to provide an experience that: (1) is directly related to their college program and career objectives; or (2) will help them test out career interest and/or discover new career possibilities. Credit is determined on the basis of one semester of credit for each 60 hours of approved employment to be completed in a term. Appropriateness of learning objectives is an essential factor in the approval process. 1-5 credits per semester, 12 credits maximum. (15-285)

89:120 Individualized Educational Planning & Assessment (1 s.h.) Prerequisite: Students must have the consent of the instructor. The introductory and required beginning course for the Individualized Competency Based Education Program (ICBE). It is designed to teach educational assessment and evaluation, career development and goal setting, degree pact writing and individualized educational planning. (15-0)

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

89:151 Academic Success Seminar (2 s.h.) Designed primarily for freshmen. The focus is assisting in the development of effective study techniques and comprehensive skills necessary for independent learning and academic success. (30-0)

89:152 Career Decision Making (2 s.h.) Introduction to a structured career decision-making process, including self-awareness, career and educational information, computerized assistance, and related activities/projects. (30-0)

89:153 ACE-Action for College Education (1 s.h.) Prerequisite/Corequisite: For participants in the Student Support Services Project. ACE (Action for College Education) is a motivational behavioral modification program. The course cultivates a positive attitude and gives students the motivation to help themselves in a college setting. The goal is to instill confidence, eagerness, and enthusiasm toward obtaining a college degree. (15-0)

89:155 Financial Management/Insurance Internship (3 s.h.) The internship will provide practical application for each student. The activities will be in the actual insurance industry environment where each student will be afforded the opportunity to turn theory into application. (15-150)

89:163 Professionals in Health (2 s.h.) Presents skills and characteristics expected for professional preparation and employability. Provides an overview of the health industry, current trends, and issues. Discusses the work environment as it relates to health and safety regulations. (30-0)

89:164 Nurse Aide Theory (2 s.h.) Prerequisite/Corequisite: At least 14 years of age. Strength and endurance to meet the requirements in performing skills such as lifting and moving residents. Completed 16-hour video and workbook. Physical exam with Rubella Titer, TB test, hepatitis B vaccine or waiver. This 75-hour nurse aide course has been designed to meet the training requirements of The Omnibus Budget Reconciliation Act of 1987 (OBRA) for aides working in nursing facilities (NF) and skilled nursing facilities (SNF). Emphasis in the course is on students achieving a basic level of knowledge and demonstrating skills to provide safe, effective resident care. The course has been developed in six units of study. (30-0)

89:165 Nurse Aide Clinical (1 s.h.) This course is part of 89:164, Nurse Aide Theory. (0-45)

89:171 EMT-P: Part I (6 s.h.) Prerequisite: EMT-B and EMT-I State of Iowa Certification, or 89:189, EMT-I: Part I. This course provides the student with advanced prehospital training. It includes roles and responsibilities, overview of human systems, emergency pharmacology, airway management, patient assessment, and trauma management (including PHTLS). (60-60)

89:172 EMT-P: Part II (7 s.h.) Prerequisite 89:171, EMT-P: Part I. This course is a continuation of 89:171, EMT-P: Part I. It includes respiratory, cardiac, diabetic, neurological, toxicological, abdominal, gynecological, behavioral, pediatric, geriatric and obstetrical emergencies. (71-69)

89:173 EMT-P: Part III (3 s.h.) Prerequisite 89:171, EMT-P: Part I; 89:172, EMT-P: Part II. This course includes 68 hours of hospital clinical experience and 67 hours of field experience. (0-0-90-45)

89:174 EMT-P: Part IV (3 s.h.) Prerequisite 89:171, EMT-P: Part I; 89:172, EMT-P: Part II; 89:173, EMT-P: Part III. This course includes 67 hours of hospital clinical

experience and 68 hours of field experience. (0-0-45-90)

89:175 EMT-I (4 s.h.) Prerequisite: EMT-B State of Iowa Certification. This class provides the student with advanced skills to provide emergency care and transport. It includes roles and responsibilities, legal aspects, EMS system and communications, patient assessment, advanced airway management, shock management, including intravenous therapy and defibrillation. It also includes 45 hours of clinical/field experience. (30-30-45)

89:195 Emergency Medical Technician - Basic Part I (4 s.h.) Prerequisite/Corequisite: Be at least 17 years of age at the time of enrollment. Be proficient in writing, reading, and speaking English. Hold or be eligible to obtain a current driver's license. Be physically and emotionally capable of performing basic emergency care skills. Current certification at the Basic Cardiac Life Support Health Care Providers Course with the American Heart Association. Physical examination required prior to beginning hospital clinicals with immunizations and hepatitis B vaccine or waiver. This class provides the student with the necessary knowledge and skill to perform basic emergency care and transport. It includes an introduction/preparation module, airway management module, patient assessment module, medical/behavioral emergencies module, and obstetrical/gynecological emergencies module. Six hours of clinical in the hospital and nursing home is also included. (47-24-6)

89:196 Emergency Medical Technician - Basic Part II (2 s.h.) Prerequisite/Corequisite: Be at least 17 years of age at the time of enrollment. Be proficient in writing, reading, and speaking English. Hold or be eligible to obtain a current driver's license. Be physically and emotionally capable of performing basic emergency care skills. Current certification at the Basic Cardiac Life Support Health Care Providers Course with the American Heart Association.

Physical examination required prior to beginning hospital clinicals with immunizations and hepatitis B vaccine or waiver. Must have completed EMT-Basic Part I (89:195). This class is a continuation of EMT-B Part I. It includes a trauma module, infants and children module, and operations module. Twelve hours of clinical in the hospital is also included. (20-14-12)

Study Abroad

Through NIACC's participation in the Iowa Community College Study Abroad Consortium, students have the opportunity for foreign study while remaining full-time NIACC students. Currently, the program is offered in London during the fall semester. On this program, students have the opportunity to earn 12 or more credit hours. Except for a mandatory Humanities offering, British Life and Culture (89:157 - 3 s.h.), course offerings are determined by the expertise of the instructor accompanying the students in any given semester.

Enrich Program

This program is recommended to students who do not meet the prerequisites for developmental courses. It is intended to lead to a one year General Studies diploma. Credit earned will not satisfy the requirements for an Associate degree and will not be used in calculating the cumulative grade point average for graduation. All courses in the program have been designed as pass/no pass.

30:048 Communication Through Reading and Writing, Enrich (4 s.h.) Prerequisite: Consent of instructor. This Enrich course will focus on strategies that enable adult students to understand and apply reading and decoding skills. Students will also learn strategies that enable them to express ideas clearly

and correctly in writing, and to successfully apply these writing and reading skills in their daily lives, at work, and in leisure activities. (60-0)

30:049 Communication Through Reading and Writing II (4 s.h.)

Prerequisite: Consent of instructor. This Enrich course will focus on strategies that enable adult students to understand and apply reading skills and to express ideas clearly and correctly in writing. Applications will be in daily life, at work, and in leisure activities. This course is designed to follow Communication Through Reading and Writing I, Enrich (30:048) but may be taken without that prerequisite. (60-15)

40:038 Enrich Math I (2 s.h.) Prerequisite: Consent of instructor. This Enrich course will focus on strategies that enable adult students to understand and apply mathematics in their daily lives, at work, and in their leisure hours. (30-0)

40:039 Enrich Math II (2 s.h.) Prerequisite: Consent of instructor. This Enrich course will focus on strategies that enable adult students to understand and apply mathematics in their daily lives, at work, and in their leisure hours. Focus will be on partials, both in decimal and fraction form. (30-0)

89:020 Civic Responsibility (3 s.h.) Prerequisite: Consent of instructor. This Enrich class is designed to teach the economic philosophy and structural construction of the American government. Stress will be placed on the citizen's role within that government. Economics and the individual consumer will be considered. (45-0)

89:030 Personal Management (3 s.h.) Prerequisite: Consent of instructor. This Enrich course will examine concerns faced by students as members of modern society. It is designed to assist students in mak-

ing sound decisions concerning physical, mental, and financial health, and to use nonworking hours in a creative way. Critical thinking skills will be emphasized as students analyze written documents, including those financial, legal, and medical. (45-0)

89:040 Skills for Job Seekers (3 s.h.) Prerequisite: Consent of instructor.

This Enrich course is designed to assist the student in structuring a job search. Written materials will include applications, resumes, and cover letters. Interviewing skills will be developed. Job-keeping skills will be emphasized. (45-0)

89:041 Career Decisions (3 s.h.)

Prerequisite: Consent of instructor. This Enrich course is designed to assist students in determining realistic career objectives and assessing personal strengths. Curriculum focuses on self-management skills, time, and organizational concepts. The class stresses both written and verbal communication skills. (45-0)

Quotable Quote:

*Life is a great big canvas,
and you should throw all the
paint on it you can.*

-Danny Kaye