

COURSE DESCRIPTIONS—COLLEGE TRANSFER PROGRAMS

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

* **Special Problems credit cannot be used to fulfill general education core requirements of degree.**

The pair of numbers in parentheses at the end of each course description refers to lecture hours and lab hours respectively.

10 Art

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

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

10:102 History of Art I (4 s.h.)The study of the development of the vis-

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

10:103 History of Art II (4 s.h.)The study of the development of the visual arts of western civilization including painting, sculpture, architecture, crafts, and photography from the Renaissance through the twentieth century. (60-0)

10:112 Art in the Elementary School (3 s.h.)Prerequisite: 10:101, Essentials of Art, or permission of instructor to remove prerequisite. Recommended for elementary education majors. Designed for elementary education majors or for those interested in working with children. Artistic development of children, art instructional planning, art studio and response activities, and a "hands-on" teaching experience are incorporated, as well as multicultural and interdisciplinary approaches and art for children with special needs. (45-0)

10:120 Drawing (3 s.h.)The development of visual perception in objective and subjective representation. Study of line, form, texture, and value in a variety of media stressing an individual's creative development. Entry-level course. (20-50)

10:130 Ceramics (3 s.h.)Prerequisite: 10:201, Two-Dimensional Design; 10:120, Drawing; or 10:101, Essentials of Art. An introductory course involving hand-building, wheel-throwing, glazing, and firing. Slides, lectures, and demonstrations. Ceramics facilities are located in the MacNider Museum, Mason City. (20-50)

10:150 Creative Photography (3 s.h.)An investigation into the relationship of basic photographic techniques to design, perception, and aesthetics. Each student is encouraged to cultivate his or her own vis-

ual vocabulary while working on photographic projects. (20-50)

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

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

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

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

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

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

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

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

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

15 Business

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

15:107 Keyboarding for Office Technology (3 s.h.) Prerequisite: 15:112, Keyboarding Level I, and/or 15:113, Keyboarding Level II, OR keyboarding skill of 30 wpm (words a minute) with 3 or less errors on a 3-minute timed writing. This course covers the continued development of speed and accuracy on the alphabetic, numeric, and symbol keys. Students develop skills in formatting, produc-

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

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

Open Entry/Open Exit

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

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

15:113 Keyboarding Level II (1 s.h.) [Open Entry/Open Exit] Prerequisite: Keyboarding Level I OR ability to keyboard at 20 words a minute. This course covers the development of the touch method on the computer keyboard to learn/review the alphabetic, numeric, and symbol keys. The keyboarding goal is a minimum rate of 30 words a minute with 3 or less errors. (0-30)

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

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

15:119 Accounting Applications (5 s.h.) Prerequisite: 15:109 Introduction to Accounting or 15:118 Accounting Procedures or 15:150 Accounting Principles with a grade of "C" or above. A continuation of Accounting Procedures including voucher system, partnerships, and corporations. Includes completion of an accounting simulation project. (75-0)

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

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

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

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

15:140 Introduction to Computers and Information Systems (3 s.h.)

Emphasis on computer literacy and business applications of computer software. Students do business problems using electronic spreadsheets, word processing software, data base management software, and presentation software. Students also are exposed to some programming and web page development. (45-0)

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

Prerequisite: 15:140, Introduction to Computers and Information Systems, or permission of the Instructor. The primary goal of Introduction to MIS is to prepare students to be productive participants in an information society. The course is designed to develop a broad understanding of business information systems, various ways to discern information from an information system, and look at ways to distribute this information. The student will also learn the basic principles and techniques for developing simple computer-based information systems for managerial decision support systems. (30-30)

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

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

15:144 Principles of Supervision (3 s.h.)

This course is designed for individuals who hold, or who will hold, supervisory positions. The course involves the study of the major managerial functions (planning, organizing, staffing, direct-

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

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

Prerequisite/Corequisite: 15:144, Principles of Supervision. An understanding of management functions involved with being a supervisor. Enhancement of the understanding of supervisory roles. (45-0)

15:149 Managing Human Resources (3 s.h.)

Course describes the transition from personnel management to human resources management. The focus is on the systematic process of recruitment, selection, developing, and appraising employees. (45-0)

15:150 Accounting Principles I (3 s.h.)

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

15:151 Accounting Principles II (3 s.h.)

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

15:155 Payroll Accounting (3 s.h.)

Prerequisite: 15:109 Introduction to Accounting or 15:118 Accounting Procedures or 15:150 Accounting Principles I with a grade of "C" or above. A study of basic business taxes. Emphasis on payroll taxes including social security taxes, income taxes, and unem-

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

15:156 Networking I (3 s.h.)

This course provides an overview of networking, including such topics as networking advantages, OSI layers, addressing and routing protocols, and LAN design, topologies, and cabling. (45-0)

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

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

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

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

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

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

15:160 Computer Accounting (3 s.h.)

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

15:161 Introduction to Operating Systems (3 s.h.)

This course intro-

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

15:162 Network Operating Systems I (4 s.h.) Prerequisite: 15:161, Introduction to Operating Systems. This course provides an overview of where networking operating systems fit into the network solution, including such topics as the components and features of a network operating system, major network operating systems, operating system setup and configuration, network client issues, WAN issues, and network operating system selection criteria. (30-30)

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

15:164 Groupware Applications I (4 s.h.) This course provides an introduction to such applications as electronic mail, shared calendars, document sharing, bulletin boards, voice and video conferencing, and applications within a networked environment. The course will also include an examination of groupware application features, groupware configuration and management, the relation of desktop applications to group products, a comparison of specific groupware products, and social issues related to groupware applications. (30-30)

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

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

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

15:167 Network Security (3 s.h.) Prerequisite: 15:156, Networking I, and 15:161, Introduction to Operating Systems, or permission of the instructor. This course will provide an overview of issues related to security in a networked environment, including such topics as security and disaster recovery, security within information services, security within an organization, virus protection, and Internet security/firewalls. (30-15)

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

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

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

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

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

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

15:173 Seminar in Entrepreneurship (3 s.h.) Course will combine group lecture/discussions with an actual case project with a local entrepreneurial firm. Students will have an opportunity to apply business skills learned throughout their NIACC program in local entrepreneurial firms. (45-0)

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

base theory and systems development. Actual use of data bases and development of simple information systems; making use of a popular relational data base will also be done. (30-30)

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

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

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

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

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

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

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

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

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

15:207 Real Estate Prelicense (3 s.h.) This pre-license course is required by the Iowa Real Estate Commission prior to examination for an Iowa Real Estate Salesperson License. Upon completion of this curriculum, participants will be

exposed to principles of real estate, terminology, mathematical calculations, procedures and ethics necessary to enable them to understand the real estate profession. This course prepares them to take the Real Estate Salesperson Examination, and to function as a well informed real estate salesperson. (30-30)

15:210 Business Statistics (3 s.h.) Prerequisite: 40:125, Quantitative Methods; 40:140, Intro to Statistics; 40:161, Precalculus; or approval of instructor. The use of statistical methods as an analytical tool in business situations. Data collection, tabular and graphical presentations, frequency distributions, probability, sampling, data analysis, hypothesis testing and regression and correlation analysis. The use of a computer is incorporated into the course. (45-0)

15:211 Word Processing (2 s.h.) This course is designed to introduce students to computers and the fundamentals of word processing. The students will progress from basic through intermediate features of word processing software. (15-30)

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

15:217 Professional Office Procedures (5 s.h.) Prerequisite: 15:211, Word Processing; and 15:212, Business Communication. Office procedures and techniques necessary to perform general office duties. Includes using a word processor, developing transcription skills, composing letters, filing, handling telephone

services, discussing professionalism, applying grammar rules, and taking care of general office administration. Students are expected to spend time outside of class working in the computer lab. (60-30)

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

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

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

15:230 Money and Banking (3 s.h.) Prerequisite: 80:133, Macroeconomics. An examination of money, banks, and financial markets and their effects on the U.S. economy in a global setting. The focus is on the nature and functions of money, the supply and demand for money, financial markets and interest rates, the Federal Reserve Banking System, bank safety and regulation, the money supply, and the level of national income and monetary policy. (45-0)

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

15:250 Basic Medical Insurance and Coding (2 s.h.) Prerequisite: 15:251, Medical Terminology I and 94:104, Body Structure and

Function. This course will provide the students with an overview of medical health insurance claims submission guidelines and basic coding procedures. In addition, the student will work through a number of relevant case studies. (30-0)

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

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

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

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

gested corequisite 70:250, Anatomy and Physiology I. This course is designed to introduce students to advanced medical transcription including reports dictated with foreign accents and other real-life situations. The students will apply problem-solving techniques to accurately transcribe advanced documents. (15-60)

15:259 Medical Office Procedures (3 s.h.) Prerequisite: 15:211, Word Processing, and 15:212, Business Communication. Management of a medical office that includes preparing correspondence and patient records, filing, handling telephone services, making and keeping appointments, developing transcription skills, composing letters, discussing professionalism, applying grammar rules, and taking care of general office duties. Also includes medical ethics and etiquette, medical law, and use of a computer for word processing. Students are expected to spend time outside of class working in the computer lab. (60-30)

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

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

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

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

20 Education

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

20:110 Educational Measurement and Evaluation (2 s.h.) Prerequisite: 20:101, Intro to Teaching 80:103, Educational Psychology; and 80:230, Human Growth and Development. This introductory course in educational measurement and evaluation will provide a survey of the following topics: assessment instrument, test preparation, and use of standardized measures. (30-0)

20:120 Mainstreaming the Exceptional Student (2 s.h.) Prerequisite: 20:110, Educational Measurement and Evaluation; and 80:230, Human Growth and Development. An introductory discussion of issues and practices used in mainstreaming or including exceptional students in regular school settings. Topics include: rationales for and against inclusion; approaches for addressing the needs of all students, including the gifted; adaptive strategies for curriculum and classroom; and approaches to supporting unique educational programs. (30-0)

20:195 Educational Media and Classroom Computing Techniques (3 s.h.) The production and use of instructional media/computer technology and their relationship to educational strategies. (30-30)

25 Engineering

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

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

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

25:110 Orientation to Engineering (0 s.h.) Designed to help freshmen better understand engineering and assist them in choosing their area of specialization. Presentations by guest engineers from industry who discuss their areas of the profession. Four field trips to a selected engineering department of North Iowa industrial firms. (Class meets one hour per week.) (10-8)

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

25:231 Statics of Engineering (3 s.h.) Prerequisite or corequisite: 40:253, Analytic Geometry and Calculus III; and 70:282, College Physics I. Scalar and vector quantities, forces, moments of forces, couples, and force systems; equilibrium, centroids and centers of gravity; analysis of structures; internal forces, shear and bending moments; friction; moments of inertia of areas. (45-0)

30 English

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

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

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

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

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

30:090 Basic Writing (4 s.h.) developmental writing course designed for students referred by orientation assessment or by instructors. Emphasis is on writing; students will learn strategies for recognizing and compensating for individual writing problems. Students complete the course by meeting the minimum entrance requirements for Communication Skills I. Credit earned will not satisfy the requirements for the A.A., A.S., A.S.B., or A.A.S. degrees and will not be used in calculating the cumulative grade point average for graduation. (60-0)

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

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

(15-0)

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

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

30:095 Basic Reading (4 s.h.) developmental reading course designed for students who test at less than a ninth grade reading ability on standardized tests. Emphasis is on practice in improving concentration, vocabulary, and methods of studying. Credit earned will not satisfy the requirements for the A.A., A.S., A.S.B., or A.A.S. degrees and will not be used in calculating the cumulative grade point average for graduation. (60-0)

30:101 Communication Skills I (4 s.h.) Improvement of skills in reading, writing, speaking, and listening, with an emphasis on expository methods of development and personal experience as supporting material. Students must meet minimum competency

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

30:101C Communication Skills I (3 s.h.) Improvement of skills in reading and writing with an emphasis on expository methods of development and personal experience as supporting material. Students must meet minimum competency requirements in writing and speaking to receive a grade of C or higher. Students may use the computer editing system, Writer's Workbench. (45-0)

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

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

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

30:111 Introduction to Poetry/Drama (3 s.h.) A study of se-

lected works of poetry and drama as forms of literature. Discussion and writing emphasizing interpretation, critical analysis, and judgment/evaluation. (45-0)

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

30:113 LOGOS (1 s.h.) Students may contribute to the student news publication, LOGOS, for 1-4 credits during their enrollment at NIACC. Credit may be earned through practical experience in reporting, photography, advertising, and other production-oriented work. Staff members are required to attend weekly staff meetings and meet a minimum number of contributions for a passing grade. (0-30)

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

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

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

30:120 College Reading Skills (3 s.h.) Instruction and practice in improving speed and comprehension, in budgeting time for reading, in developing ability to concentrate, in building vocabulary, in adjusting the rate and kind of reading to the purpose and the content, and in previewing content to be studied. (45-0)

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

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

30:201 World Literature I (3 s.h.) Readings from the great books of the Western world. Prose, poetry, and drama from the Bible and classical times to mid-18th century. May be taken without World Literature 202. (45-0)

30:202 World Literature II (3 s.h.) Readings from the great books of Western, Oriental, and African literature. Prose and drama from mid-18th century to the present. May be taken without World Literature 201. (45-0)

30:203 Minority Literature: African American (3 s.h.) Prerequisite: 30:101, Communication Skills I. A study of the writings of major African Americans from pre-Civil War to contemporary times. Slave narratives, autobiographies, letters, short stories, poetry, and novels will be studied as works of literature. Discussion and writing will focus on the critical analysis of the works. (45-0)

30:204 Minority Literature: Native American (3 s.h.) Prerequisite: Communication Skills I. A study of the writings of major Native Americans from precontact with Europeans to contemporary times. Legends, autobiographies, letters, speeches, poetry, novels and short stories will be studied as works of literature. Discussion and writing will focus on the critical analysis of the works. (45-0)

30:205 Creative Writing (3 s.h.) Prerequisite: A strong interest in writing and a background in literature is

stressed before enrolling. A practical workshop in writing and rewriting manuscripts in preparation to publications. Emphasis on articles and short stories; individual instruction in poetry, novel, plays, or children's books. (45-0)

30:210 Children's Literature (3 s.h.) A study of Children's Literature from its beginning to contemporary literature by genre. An emphasis on teaching literature in the classroom will be a major component of the course. (45-0)

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

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

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

35 Foreign Languages

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

35:299A Special Problems in Foreign Languages French-Spanish-German* (1 s.h.) Student may submit a proposal for a special project. With the instructor's approval and the consent of the Division Chair and Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. (15-0)

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

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

40 Mathematics

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

course in college algebra and trigonometry. Topics include properties of real numbers, linear and quadratic equations, graphs of linear and quadratic equations, systems of equations, polynomials and rational expressions, inequalities, integral and rational exponents, radicals, and complex numbers. This course may not be used to satisfy core requirements. (45-0)

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

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

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

Prerequisite: General Mathematics and Algebra skills as shown by one of the following: 1. A grade of "C" or higher in 40:121, Math for Decision Making or 40:120, Intermediate Algebra; 2. Successful completion ("C" or higher) of at least three high school mathematics courses including Algebra I, Algebra II, and Geometry. The course is especially designed for elementary education majors. Topics include problem-solving strategies, sets, numeration systems, algebra, geometry, logic, calculators and computers, elementary probability and statistics. These topics are presented with a focus on their developmental theory. (45-0)

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

Prerequisite: 40:120, Intermediate Algebra (grade of "C" or better), or equivalent. This course provides a sampling of applied mathematics topics from various disciplines. Some topics covered include linear systems, matrices, linear programming, set theory, and probability. (45-0)

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

Prerequisite: 40:120, Intermediate Algebra (grade of "C" or better), or equivalent. This course is intended to introduce students to basic statistical concepts. It covers descriptive and inferential statistical methods, hypothesis testing on the mean and proportion, Chi-square test for independence, and regression. Statistical software is used in the course. (45-0)

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

Prerequisite: three semesters of high school algebra or 40:120, Intermediate Algebra (grade of "C" or better), or equivalent. This course is intended for students majoring in business, social science, biological sciences, liberal arts, and those mathematics students with insufficient background to begin the study of calculus and feel they cannot keep up the pace of Precalculus. Topics include review of algebraic operations, field properties, introduction to plane analytic geometry, including points and lines, functions of various types such as polynomials and their graphs, operations with complex numbers, and circular functions. (60-0)

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

Prerequisite: 40:151, College Algebra & Trigonometry I. This course is a continuation of 40:151. Topics include further study of functions, inverse functions, study of vectors, complex numbers, DeMoivre's theorem, solution of systems of equations, matrices, solid analytical geometry, probability, sequences and series, logarithmic and exponential functions. (60-0)

40:161 Precalculus (4 s.h.)

Prerequisite: four semesters of high school algebra and one year of geometry or equivalent. This course is intended to provide students with a summary of mathematics topics needed to study analytic geometry and calculus. The functional approach is emphasized. Topics covered include fundamentals of algebra, polynomial, rational, exponential, logarithmic, and trigonometric functions, analytic trigonometry, systems of equations, analytic geometry of conics, sequences, and series. (60-0)

40:170 Fortran (3 s.h.)

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

40:240 Calculus for Business (3 s.h.)

Prerequisite 40:161, Precalculus, or equivalent. This course uses calculus techniques with an emphasis on applications. Topics include derivatives and their uses, exponential and logarithmic functions, integration and its applications. Graphing calculator is required. (45-0)

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

Prerequisite: 40:161, Precalculus, or equivalent. Topics include analytic geometry concepts, limits, derivatives and integrals of algebraic, trigonometric, logarithmic, and exponential functions, applications of differentiation, and L'Hopital's Rule. (60-0)

40:252 Analytic Geometry and Calculus II (4 s.h.)

Prerequisite: 40:251, Analytic Geometry & Calculus I. This course is a continuation of 40:251. Topics include applications of the

definite integral; inverse trigonometric and hyperbolic functions; techniques of integration; improper integrals; and infinite sequences and series. (60-0)

40:253 Analytic Geometry and Calculus III (4 s.h.)

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

40:261 Differential Equations (3 s.h.)

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

40:299A Special Problems in Mathematics* (1 s.h.)

Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. (15-0)

40:299B Special Problems in Mathematics* (2 s.h.)

Same as 40:299A. (30-0)

40:299C Special Problems in Mathematics* (3 s.h.)

Same as 40:299A. (45-0)

50 Music

50:113 Exploring Music (3 s.h.)

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

50:120 Introduction to Music Theory (2 s.h.)

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

50:121 Music Theory I (4 s.h.)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

50:135 Band (1 s.h.) The North Iowa Concert Band, sponsored by North Iowa Area Community College, rehearses one night each week in preparation for concerts and programs. Open to all interested NIACC students and adults in the North Iowa area. (16-0)

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

50:137 Orchestra (1 s.h.) The North Iowa Symphony Orchestra, sponsored by North Iowa Area Community College, rehearses one night each week in preparation for concerts and programs. Open to NIACC students and adults in the North Iowa area. (16-0)

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

50:139 Chamber Ensemble (½ s.h.) Prerequisite: consent of instructor. Course is designed to provide an opportunity to study and perform chamber literature of the last three centuries. Groups may vary in size from duets to sextets for brass, woodwind, strings, or percussion instrumentalists. Also includes jazz small groups and combos. Time arranged. (8-0)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

60 Physical Education

60:112 Scuba Diving (1 s.h.) Development of skills, knowledge, and safety leading to international certification in sport diving. Will involve additional fees for equipment rental, book, certification, pool rent, and purchase of specialized scuba gear. (15-0)

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

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

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

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

60:117 Introduction to Physical Education (Co-ed) (2 s.h.) Designed to provide career information concerning opportunities in physical education, coaching, and recreational activities. (30-0)

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

60:120 Baseball (1 s.h.) (40-160)

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

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

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

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

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

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

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

60:153 Human Development in Sports (1 s.h.) A one-semester course with emphasis on human growth and development and relationship to physical activity, with special attention to children and adolescents. (12-6)

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

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

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

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

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

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

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

60:299A Special Problems in Physical Education* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. (15-0)

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

70 Natural Sciences

70:100 Intro to Lab Science (2 s.h.) Prerequisite: 30:101, Communication Skills I; 80:110, Sociology OR 80:101, General Psychology; 70:140, Intro to Chemistry; 70:250, Anatomy and Physiology I. This course familiarizes the student with the Medical Laboratory Technician program and the field of laboratory medicine. The organization and role of the clinical laboratory are explored, as well as medical ethics and conduct, employment opportunities, and professional opportunities. (30-0)

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

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

70:104 Environmental Science (3 s.h.) The study of ecological principles and the interrelationships among populations, resources, and pollution in developing a sustainable society. Topics include: population, ecology, soil, water, land and energy resources, plus air, water, soil, and waste management. Environmental decision-making strategies to resolve current and future environmental issues are stressed. (45-0)

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

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

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

70:110 Health and Nutrition (3 s.h.)

The science of health and its application to the individual, home, community, and school. Elementary physiology, nutrition, dependency, and current health problems of national concern. (45-0)

70:111 Human Biology (4 s.h.)

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

70:112 Animal Science I (3 s.h.)

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

70:114 Intro to Physical Science and Lab (4 s.h.)

Prerequisite: High school Algebra or equivalent. An introductory college level, one-semester course intended to meet general education requirements. Topics are chosen from the fields of physics and chemistry. (45-30)

70:122 Principles of Physics (4 s.h.)

Prerequisite: 40:120, Intermediate Algebra, or equivalent. An introductory level, one-term course. Major topics are measurement, matter in motion, heat, wave motion, electricity, and magnetism. (45-30)

70:135 General Chemistry I (5 s.h.)

Prerequisite: 40:060, Beginning Algebra, or equivalent. Introduction to the basic concepts and facts of chemistry. Topics include atomic structure, formation of ionic and covalent compounds, molecular structure, chemical equations including mass relations, solutions, and gases. Intended for nonscience majors. (45-60)

70:136 General Chemistry II (5 s.h.)

Prerequisite: 70:135, General Chemistry, or the equivalent. Continuation of 70:135, General Chemistry 70:135. Topics include types of chemical reactions and chemical reactivity, equilibrium concepts, reaction rates, electrochemical cells, introductions to organic chemistry and biochemistry. Intended for nonscience majors. (45-60)

70:137 Chemistry Principles I (5 s.h.)

Prerequisite: satisfactory completion of one year of high school chemistry; 40:120, Intermediate Algebra, or the equivalent. Atomic structure, stoichiometry, thermochemistry, physical properties (gases, liquids, solids, and solutions), chemical bonding and molecular structure, structure-property relationships. (45-60)

70:138 Chemistry Principles II (5 s.h.)

Prerequisite: 70:137, Chemistry Principles I, or equivalent. Chemical equilibrium and kinetics, acid-base chemistry, chemical thermodynamics, electrochemistry, descriptive chemistry of selected elements, introduction to organic chemistry and polymers, nuclear reactions. (45-60)

70:140 Introductory Chemistry (4 s.h.)

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

70:149 Kinesiology (3 s.h.)

Prerequisite: 70:250, Anatomy and Physiology I; and 70:251, Anatomy and Physiology II. Provides a basic understanding of normal human body movement as related to skeletal, ar-

ticular, neurological, and muscular systems. Levers, torques, center of gravity, base of support, and their relationship to balance, posture, and movement will be addressed. The student will learn anatomical palpations and the basics of human gait. (30-30)

70:161 Genetics (4 s.h.)

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

70:182 Astronomy (3 s.h.)

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

70:200 Nutrition (3 s.h.)

Prerequisite: three credit hours of inorganic chemistry. Physiology very helpful, but not essential. Introduces the scope of the science of nutrition and its application to the nurse's role in promoting good nutrition throughout the life span. Principles of diet modification are presented as they relate to specific health problems. Nursing assessment, the patient's nutritional needs, and dietary planning are included. (45-0)

70:212 Animal Science II (3 s.h.)

Prerequisite: 70:112, Animal Science I. Advanced principles of livestock production and management. Areas of emphasis include: animal husbandry practices which result in greater performance and profit; livestock facilities requirements; production trends in livestock production; and nutritional requirements for swine and beef production. (45-0)

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

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

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

70:260 Quantitative Analysis (4 s.h.) Prerequisite: 70:137 and 70:138, Chemistry Principles; or 70:135 and 70:136, General Chemistry. Theory and practice of general gravimetric, volumetric, and instrumental methods of chemical analysis; laboratory work involving quantitative reactions, measurements, and calculations. (45-30)

70:272 Fundamentals of Organic Chemistry (3 s.h.) Prerequisite: 70:135, General Chemistry; 70:137, Chemistry Principles I; or 70:140, Introductory Chemistry. A survey of organic chemistry and biochemistry for students in nursing and related fields. Topics include organic reaction mechanisms; nomenclature chemistry of carbohydrates, lipids and proteins, and their metabolism; biochemical systems. (45-0)

70:273 Organic Chemistry (4 s.h.) Prerequisite: 70:140, Introductory Chemistry; 70:135, General Chemistry; or 70:137, Chemistry Principles I. This course provides instruction in the preparation and reactions of the basic classes of carbon compounds. Among these include hydrocarbons, alcohols, esters, carboxylic acids and their derivatives, aldehydes, ketones, amides, and amines. Laboratory procedures and techniques dealing with nonaqueous solvents are developed. (45-30)

70:274 Organic Chemistry I (5 s.h.) Prerequisite: 70:136, General Chemistry II, or 70:138, Chemistry Principles II. For students looking forward to work in medicine, pharmacy, dentistry, veterinary science, or chemical engineering, and for students intending to major in chemistry. (45-65)

70:275 Organic Chemistry II (5 s.h.) Prerequisite: 70:274, Organic Chemistry I. This course is a continuation of 70:274. The lecture and laboratory incorporates spectral use and applications. (45-65)

70:280 General Physics I (4 s.h.) Prerequisite: 40:151, College Algebra and Trigonometry, or equivalent. Mechanics, simple harmonic motion, waves, and fluids. Designed for students in pharmacy, medicine, dentistry, and professional fields other than engineering. Liberal arts students with an interest in science may elect this course. (45-30)

70:281 General Physics II (4 s.h.) Prerequisite: 40:151, College Algebra and Trigonometry or equivalent, and 70:280, General Physics I; or equivalent algebra-based first semester physics course as approved by the instructor. A continuation of 70:280, thermodynamics, electricity and magnetism, DC and AC circuits, optics and atomic physics. (45-30)

70:282 College Physics I (5 s.h.) Prerequisite: Calculus concurrent or in background. Calculus-based Physics with emphasis on engineering applications. (60-30)

70:283 College Physics II (5 s.h.) Prerequisite: Calculus concurrent or in background. Calculus-based physics with emphasis on engineering applications. (60-30)

70:297A Special Problems in Biology* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. (15-0)

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

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

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

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

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

70:299A Special Problems in Physics* (1 s.h.) Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. (15-0)

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

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

80 Social Sciences

Note: All courses in this category do not meet the Social Science distribution requirement. See pages 139-142 for courses which specifically meet this requirement.

80:101 General Psychology (3 s.h.)

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

80:103 Educational Psychology (3 s.h.)

Prerequisite: 20:101, Intro to Teaching, is highly recommended, but not required prior to taking Ed Psychology. Study of teaching and learning process. Mental hygiene, evaluation, individual differences, motivation, and teaching methods are introduced as they apply to the teaching and learning environment. (42-3)

80:104 Child Psychology (3 s.h.)

Prerequisite: 80:101, General Psychology, and/or 80:230, Human Growth and Development. Course covers information relevant to the development of humans from the prenatal stages through adolescence. Topics covered include the developing fetus, as well as physical, social, and psychological development in infancy, toddlerhood, childhood, and adolescence. (45-0)

80:110 Sociology (3 s.h.) An introductory course in sociology. A study

of the basic processes of group behavior identifying the main forces that hold groups together or weaken them. The study of society, family and group life, social organizations, culture, population structure and change, social change, and community structure, both urban and rural. (45-0)

80:111 Social Problems (3 s.h.)

An introduction to the study of contemporary social problems. The course examines the identification of social problems, underlying conditions and causes, and possible solutions to them. Emphasis on sociological and critical thinking perspectives. Exploration of issues involving deviance, substance abuse, educational, legal, health care, and political systems, and gender, racial, and social inequalities. (45-0)

80:112 Marriage and Family (3 s.h.)

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

80:114 Introduction to Human Services (3 s.h.)

This course is designed to familiarize the student with the human services arena. Various employment opportunities are explored, as well as ethical, legal, political, and economic forces. (45-0)

80:120 Introduction to American Government (3 s.h.)

A survey of the American federal system of government including a description and analysis of the Constitution, the legislative, executive, and judicial branches of government, and the American political process. (45-0)

80:121 American State and Local Government (3 s.h.)

A survey of

state and local governments in the United States including an analysis of federal-state relations, state constitutions, state and local legislative, executive, and judicial systems, and major issues in state and local politics. (45-0)

80:122 International Relations (3 s.h.)

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

80:125 Student Senate (1 s.h.)

Students learn organizational and leadership skills through participation in the NIACC Student Senate, student and college committees, and student activity programming. Each student will identify and carry out a project to demonstrate leadership skills including needs assessment, planning, budgeting, motivating volunteers, and evaluation. (0-30)

80:126 Student Senate (1 s.h.)

Same as 80:125. (0-30)

80:133 Macroeconomics (3 s.h.)

An introductory study of how people use scarce resources to satisfy their many material wants and needs. The emphasis is on the determination of national income, output, employment and prices, and the role of the money and banking system in a market economy. (45-0)

80:134 Microeconomics (3 s.h.)

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 Native American History: Prehistory to Mid-20th Century (3 s.h.) Ethnographic, geographic, and historical survey of the social, cultural, and political systems developed by Native Americans north of Mexico. Points of emphasis include native religion and world view, family life, agricultural and hunting practices, material culture, trade and diplomacy, political structures, and the mutualities impact on societies and policies resulting from contact and interaction with Europe and the United States. (45-0)

80:150 Introduction to Physical Geography (3 s.h.) An introductory systems course in geography that acquaints the student with spatial relationships that exist in the physical environment. Topics include: geographic tools, weather and climate, land forms, soils, water resources, plants, and animals. Lab experience included. (45-8)

80:151 Regional Geography of the Developed World (3 s.h.) A regional study of the physical and cultural spatial patterns of Europe, Australia, Russia, and Anglo-American. (45-0)

80:152 Regional Geography of the NonWestern World (3 s.h.) A regional study of the physical and cultural spatial patterns of Middle America, South America, North Africa/Southwest Asia, South Asia, East Asia, Southeast Asia and the Pacific World. (45-0)

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

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

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

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

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

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

80:210 Introduction to Philosophy (3 s.h.) Introduces the student to the study of philosophy and teaches skills of critical thinking. The course examines the meaning and value of

philosophy; human nature and the self; axiology -- ethics and values (in search of the good life); social philosophy; freedom; individualism; philosophy and art; epistemology -- the nature of knowledge; truth; philosophy and science; metaphysics -- reality; philosophy and religion; the meaning of suffering and death; examination of decision making and self-discovery. (45-0)

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

80:225 Student Senate (1 s.h.) Same as 80:125. (0-30)

80:226 Student Senate (1 s.h.) Same as 80:125. (0-30)

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

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

80:291 Administration of Justice (3 s.h.) Arrest, search and seizure; review of court systems; procedures from incident to final disposition; principles of constitutional, federal, state, and civil laws as they apply to

and affect law enforcement. Required course for Law Enforcement curriculum. (45-0)

80:292 Criminal Investigation (3 s.h.)

Fundamentals of investigation, crime scene search and recording, collection and preservation of physical evidence, scientific aids, modus operandi, sources of information, interviews and interrogation, follow-up, and case preparation. (45-0)

80:299A Special Problems in Social Sciences* (1 s.h.)

Students may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. (15-0)

80:299B Special Problems in Social Sciences* (2 s.h.)

Same as 80:299A. (30-0)

80:299C Special Problems in Social Sciences* (3 s.h.)

Same as 80:299A. (45-0)

85 Speech & Theatre

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

85:103 Radio Speaking (1 s.h.)

Voice analysis and training for telecommunication experience with individual study in cooperation with a local radio/television station. By consent of the instructor. (15-0)

85:104 Voice and Diction (2 s.h.)

Improving oral communication through an understanding of the physiology of the vocal mechanism and application of the phonetic alphabet. Rec-

ommended for students interested in music, speech, drama, and elementary teaching. (30-0)

85:105 Group Discussion (2 s.h.)

Principles and techniques of group discussion methods and procedures based on parliamentary methods. (30-0)

85:150 Introduction to Theatre TV and Film (3 s.h.)

A survey of dramatic theatre, television, and film. (45-0)

85:160 Stagecraft (3 s.h.)

An introduction to the construction, painting, and shifting of stage scenery, including scene shop methods and maintenance. (30-45)

85:170 Introduction to Acting (3 s.h.)

Basic principles of stage acting. Work in mime, monologue, and play cuttings to develop techniques of voice, gesture, movement, and characterization. (45-0)

85:299A Special Problems in Speech/Theatre* (1 s.h.)

Student may submit a proposal for a special project to an instructor. With the instructor's approval and the consent of the Division Chair and the Vice President for Academic Affairs, credit may be given upon satisfactory completion of the project. (15-0)

85:299B Special Problems in Speech/Theatre* (2 s.h.)

Same as 85:299A. (30-0)

85:299C Special Problems in Speech/Theatre* (3 s.h.)

Same as 85:299A. (45-0)

89 Experiential Learning, Electives, EMT and Nurse Aide

89:100 A-B-C-D-E Cooperative Work Experience (1-5 s.h.)

Practical training on the job under the cooperative supervision of the College and work supervisor. Designed primarily for college-transfer students to provide a work experience that (1) is directly related to their college program and career objectives; or (2) will help them test out career interest and/or discover new career possibilities. Credit is determined on the basis of one semester of credit for each 90 hours of approved employment to be completed in a term. Appropriateness of learning objectives is an essential factor in the approval process. (15-435)

89:101 A-B-C-D-E Cooperative Work Experience (1-5 s.h.)

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89:102 A-B-C-D-E Cooperative Work Experience (1-5 s.h.)

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89:103 A-B-C-D-E Cooperative Work Experience (1-5 s.h.)

(15-435)

89:104 A-B-C-D-E Cooperative Work Experience (1-5 s.h.)

(15-435)

89:105 A-B-C-D-E Cooperative Work Experience (1-5 s.h.)

(15-435)

89:120 Individualized Educational Planning & Assessment (1 s.h.)

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 Job-Seeking Skills (1 s.h.)

Develop skills necessary to find, obtain, and keep a job. Students learn to understand and appreciate the world of work as they examine personal job readiness and skills to make job-entry successful. (15-0)

89:151 Academic Success Seminar (2 s.h.)

Designed primarily for freshmen. The focus is assisting in the development of effective study tech-

niques and comprehensive skills necessary for independent learning and academic success. (30-0)

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

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

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

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

89:164 Nurse Aide Theory (2 s.h.) Prerequisite/Corequisite: At least 14 years of age. Strength and endurance to meet the requirements in performing skills such as lifting and moving residents. Completed 16-hour video and workbook. Physical exam with Rubella Titer, TB test, hepatitis B vaccine or waiver. This 75-hour nurse aide course has been designed to meet the training requirements of The Omnibus Budget Reconciliation Act of 1987 (OBRA) for aides working in nursing facilities

(NF) and skilled nursing facilities (SNF). Emphasis in the course is on students achieving a basic level of knowledge and demonstrating skills to provide safe, effective resident care. The course has been developed in six units of study. (30-0)

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

89:166 Nurse Aide II (3 s.h.) Prerequisite/Corequisite: Successful completion of the 75-hour nurse aide course as documented by a transcript or a certificate. Students do not have to be on Nurse Aide Registry. Health physical with current immunizations. This 80-hour course is designed as an optional additional unit of instruction to be given either in conjunction with or following the approved 75-hour course. The 75-hour course meets the OBRA (Nursing Home Reform) requirements for nurse aides who work in long-term care. This additional material provides the learner with the content emphasizing the knowledge, attitude, and skills necessary for providing patient care in the acute setting. (35-15)

89:170 First Responder (2 s.h.) Prerequisite/Corequisite: Be at least 17 years of age at the time of enrollment. Be proficient in writing, reading, and speaking English. Hold or be eligible to obtain a driver's license. Be physically and emotionally capable of performing basic emergency care skills. Current certification at the Basic Cardiac Life Support Health Care Provider module with the American Heart Association or permission obtained by the instructor. A 45-hour emergency care course which emphasizes life-threatening emergencies, wounds, fractures, medical and environmental emergencies, and other emergency situations as outlined by the U.S. Department of Transportation. (23-17)

89:189 Emergency Medical Technician - Intermediate Theory (4 s.h.) Prerequisite/Corequisite: Be at least

18 years of age at the time of enrollment. High school diploma or general education equivalent. Maturity of judgment, sound moral character, and health status provides reasonable assurance that the student will meet the physical and mental demands of the occupation. Evidence of successful completion in CPR. Evidence of successful completion of a course of training for EMT-Basic. Evidence of certification as an EMT-Basic from the state of Iowa or National Registry. Equivalent military training within the past year and experience as approved by the state agency. A recommendation by the Advance Care Training Admission Committee attesting to the applicant's attitude, professionalism, motivation, dependability, and desire to follow instructions and orders with reliability. Physical examination required prior to beginning hospital clinicals with immunizations and/or hepatitis B vaccine or waiver. (The EMT-A class is a prerequisite to this class.) This class provides the student with advanced skills to provide emergency care and transport. It includes roles and responsibilities, legal aspects, EMS system and communications, patient assessment, advanced airway management, shock management including intravenous therapy, and defibrillation. (48-22)

89:190 Emergency Medical Technician - Intermediate Clinical/Field (3 s.h.) Prerequisite/Corequisite: Be at least 18 years of age at the time of enrollment. High school diploma or general education equivalent. Maturity of judgment, sound moral character, and health status provides reasonable assurance that the student will meet the physical and mental demands of the occupation. Evidence of successful completion in CPR. Evi-

dence of successful completion of a course of training for EMT-Basic. Evidence of certification as an EMT-Basic from the state of Iowa or National Registry. Equivalent military training within the past year and experience as approved by the state agency. A recommendation by the Advanced Care Training Admission Committee attesting to the applicant's attitude, professionalism, motivation, dependability, and desire to follow instructions and orders with reliability. Physical examination required prior to beginning hospital clinicals with immunizations and/or hepatitis B vaccine or waiver. Completion of 89:189, EMT-I Part I. This course is a continuation of EMT-I Part I. It includes 65 hours of hospital clinical experience and 70 hours of field experience. (0-135)

89:191 Emergency Medical Technician - Paramedic Part I (8 s.h.)Prerequisite/Corequisite: High school graduation or general education equivalent. Be 18 years of age at time of enrollment. Maturity of judgment, sound moral character, and health status which provides reasonable assurance that the student will meet the physical and mental demands of the occupation. Evidence of current BCLS certification. Evidence of successful completion of a course of training for Emergency Medical Technician - Intermediate. Evidence of certification as an Emergency Medical Technician-Intermediate from the state of Iowa or National Registry. Equivalent military training within the past year and experiences as approved by the state agency may be substituted. A recommendation by the Advanced Care Training Admissions Committee attesting to the applicant's aptitude, professionalism, motivation, dependability, and desire to follow instructions and protocols with reliability. (The EMT-B class and at least Part I of the EMT-I class are prerequisites to this class.) This course provides the student with the

most advanced pre-hospital training available. It includes roles and responsibilities, EMS systems and communications, legal aspects, rescue and major incident response, lifting and moving, patient assessment, advanced airway management, advanced shock management, administration of medications, respiratory emergencies, cardiovascular emergencies (includes dysrhythmia recognition and ACLS). (97-48)

89:192 Emergency Medical Technician - Paramedic Part II (5 s.h.)Prerequisite/Corequisite: High School graduation or general education equivalent. Be 18 years of age at time of enrollment. Maturity of judgment, sound moral character, and health status which provides reasonable assurance that the student will meet the physical and mental demands of the occupation. Evidence of current BCLS certification. Evidence of successful completion of a course of training for Emergency Medical Technician - Intermediate. Evidence of certification as an Emergency Medical Technician - Intermediate from the state of Iowa or National Registry. Equivalent military training within the past year and experiences as approved by the state agency may be substituted. A recommendation by the Advanced Care Training Admissions Committee attesting to the applicant's aptitude, professionalism, motivation, dependability, and desire to follow instructions and protocols with reliability. Must have completed EMT-P Part I (89:191). This course is a continuation of EMT-P Part I. It includes trauma, burns, 80 hours of hospital clinical experience, and 60 hours of field experience. (80-60)

89:193 Emergency Medical Technician - Paramedic Part III (5 s.h.)Prerequisite/Corequisite: High school graduation or general education equivalent. Be 18 years of age at time of enrollment. Maturity of judgment, sound moral character, and health status which provides reasonable assurance that the student will

meet the physical and mental demands of the occupation. Evidence of current CPR certification. Evidence of successful completion of a course of training for Emergency Medical - Intermediate. Evidence of certification as an Emergency Medical Technician - Intermediate from the state of Iowa or National Registry. Equivalent military training within the past year and experiences as approved by the state agency may be substituted. A recommendation by the Advanced Care Training Admissions Committee attesting to the applicant's aptitude, professionalism, motivation, dependability, and desire to follow instructions and protocols with reliability. Must have completed EMT-P Part I and Part II (89:191 and 89:192). This course is a continuation of EMT-P Part I and EMT-P Part II. It includes 100 hours of hospital clinical experience and 120 hours of field experience. (0-100-120)

89:194 Emergency Medical Technician - Paramedic Part IV (5 s.h.)Prerequisite/Corequisite: High school graduation or general education equivalent. Be 18 years of age at time of enrollment. Maturity of judgment, sound moral character, and health status which provides reasonable assurance that the student will meet the physical and mental demands of the occupation. Evidence of current BCLS certification. Evidence of successful completion of a course of training for Emergency Medical-Intermediate. Evidence of certification as an Emergency Medical Technician-Intermediate from the state of Iowa or National Registry. Equivalent military training within the past year and experiences as approved by the state agency may be substituted. A recommendation by the Advanced Care Training Admissions Committee attesting to the applicant's aptitude, professionalism, motivation, dependability, and desire to follow instructions and protocols with reliability. Must have completed EMT-P Part I, II, and III (89:191 and 89:192 and 89:193). This course is a

continuation of EMT-P Part I, II, and III. It includes medical emergencies (endocrine, nervous, abdominal, poisoning, environmental, geriatric and pediatric), obstetrical emergencies, neonatal emergencies, and behavioral emergencies. (66-30)

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

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

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

Quotable Quote:

You can have only two things in life, reasons or results. Reasons don't count.

-Robert Anthony, Ph.D.
American psychologist and writer