ACCOUNTING

All ACC courses numbered 100 and above, except ACC 102, may be applied to the major field and electives requirement in the Associate in Arts and Associate in Science Degrees. ACC 102 is not counted toward the GPA.

ACC 100 Introductory Accounting I (3) (3, 0)
Prerequisite: None
Recommended: BUS 120
The first semester of fundamental financial accounting. Emphasis is on procedural aspects of financial accounting for the single proprietorship. Accrual basis is utilized. Entire accounting cycle is covered for both service and merchandising businesses, including adjustments, preparation of financial statements, and closing procedures. Also included are reconciliation of bank statements and petty cash. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

ACC 101 Financial Accounting (4) (4, 0)
Prerequisite: Grade of C or better in BUS 120 or MTH 125 or MTH 112 or concurrent enrollment in BUS 120 or MTH 125 or MTH 112
Recommended: ACC 100 or previous course in bookkeeping strongly recommended; BUS 100 or BEC 102 recommended
Foundation course required for further study of accounting. Principles and concepts of financial accounting are emphasized and procedures are de-emphasized. Topics include transaction analysis, development of financial reports, the accounting cycle, promissory notes, inventory costing, depreciation methods, corporation equity concepts, bonds payable, and present value. (1.1) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

ACC 103 Introductory Accounting II (4) (4, 0)
Prerequisite: Grade of C or better in ACC 100 and OTS 100
Recommended: BUS 120
The second semester of fundamental financial accounting. Emphasis is placed on microcomputer applications for accounting and real-world procedures. Topics include the computerized accounting cycle, modified cash-based accounting, valuing merchandise inventory, perpetual inventory system, valuing plant assets and depreciation. Topics also include an introduction to partnership and corporate accounting. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Available

ACC 105 Managerial Accounting (4) (4, 0)
Prerequisite: ACC 101
The second semester foundation course required for further study in accounting. Managerial accounting topics include the Statement of Cash Flows, cost behavior analysis and use, job-order costing, process costing, cost-volume-profit relationships, contribution approach to costing, budgeting, standard costs, JIT/FMS performance measures, relevant costs for decision making, and capital budgeting. (1.1) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

ACC 106 Cost Accounting (3) (3, 0)
Prerequisite: ACC 105
Fundamentals of cost accounting, covering job order, process and estimated cost development and procedures. Emphasizes current practices in cost control through reports to management, applied to business establishments of relatively small and intermediate size. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

ACC 108 Intermediate Accounting I (3) (3, 0)
Prerequisite: ACC 105
Provides review of the accounting cycle and discussion of the environment and conceptual framework underlying financial accounting. Deals in depth with income statement and balance sheet content, classification, disclosures and interpretation. Includes reports to management, applied to business establishments of relatively small and intermediate size. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

ACC 109 Intermediate Accounting II (3) (3, 0)
Prerequisite: ACC 108
Continuation of intermediate financial accounting. Includes in-depth study of leases, plant and equipment, depreciation, intangible assets, current liabilities, pensions, bases of revenue recognition, and accounting for income taxes. Stresses authoritative pronouncements of APB and FASB. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

ACC 110 Intermediate Accounting III (3) (3, 0)
Prerequisite: ACC 108
Coverage of following topics in intermediate financial accounting: investments, long-term liabilities, corporate stockholders equity, earnings per share, statement of changes in financial position, accounting for inflation. Stresses authoritative pronouncements of APB and FASB. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

ACC 112 Income Tax Accounting (3) (3, 0)
Prerequisite: None
This course is of value to anyone interested in learning about income taxes, whether for personal use or as a start toward a new vocational goal. Emphasis is on federal individual income taxes. Also, some attention is given to small businesses and corporations. Topics covered include filing status, taxable income, employee business expenses, itemized deductions, profit from business or profession, capital gains and losses, tax credits, corporations, and state of Illinois income tax. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

ACC 130 Internship in Financial Accounting (3) (1, 10)
Prerequisite: Grade of C or better in ACC 202 and ACC 203 and ACC 101 or ACC 103 or consent of instructor
Students work for a business, government agency, or other organization approximately 10 hours per week for one semester performing financial accounting tasks. Students will keep a journal detailing work performed, write a short paper and make a presentation to a current accounting class summarizing their on-the-job experience. Course is repeatable to six credits. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

ACC 134 Internship in Managerial Accounting (3) (1, 10)
Prerequisite: Grade of C or better in ACC 105 and ACC 202 and ACC 203 or ACC 205 or consent of instructor
Students work for a business, government agency, or other organization approximately 10 hours per week for one semester performing managerial accounting functions. Students will keep a journal detailing work performed, and write a short paper and make a presentation summarizing their on-the-job experience to a current accounting class. Course is repeatable to six credits. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available
ACC 138 Internship in Tax Accounting (3) (1, 10)
Prerequisite: Grade of C or better in ACC 112 and ACC 212 or consent of instructor

Students work for an accounting firm or other business approximately 10 hours per week for one semester preparing tax returns and/or working on tax-related matters. Students will keep a journal detailing work performed, and will write a short paper and make a presentation summarizing their on-the-job experience. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

ACC 201 Microcomputer Applications in Financial Accounting (1) (1, 0)
Prerequisite: ACC 100 or ACC 101 or concurrent enrollment in ACC 100 or ACC 101
Recommended: OTS 100

Designed to meet today’s business needs for computer applications in accounting. Instructional units are based on current software used on the IBM microcomputer. Course is repeatable to a maximum of four credits. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Available

ACC 202 Microcomputer General Ledger (1) (1, 0)
Prerequisite: ACC 100 or ACC 101 or concurrent enrollment in ACC 100 or ACC 101
Recommended: OTS 100 and CIS 141 or CIS 110

Designed to bridge the gap between the accounting classroom and current accounting practices. Involves processing business transactions using a general ledger software package. Course is repeatable to a maximum of four credits using different software. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

ACC 203 Spreadsheet Applications in Financial Accounting (1) (1, 0)
Prerequisite: ACC 100 or ACC 101 or concurrent enrollment in ACC 100 or ACC 101
Recommended: OTS 100

Today’s business utilizes electronic spreadsheet software to analyze accounting problems and to simplify the preparation of recurring accounting activities. Spreadsheet software is applied to appropriate topics included in ACC 100 and/or ACC 101. Course is repeatable to a maximum of four credits using different software. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

ACC 205 Microcomputer Applications in Managerial Accounting (1) (1, 0)
Prerequisite: ACC 105 or concurrent enrollment in ACC 105

Designed to meet today’s business needs for computer applications in accounting. Instructional units are based on current software used on the IBM microcomputer. Course is repeatable to a maximum of four credits. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Available

ACC 206 Microcomputer Applications in Cost Accounting (1) (1, 0)
Prerequisite: ACC 106 or concurrent enrollment in ACC 106

Designed to meet today’s business needs for computer applications in accounting. Microcomputer applications of selected topics included in ACC 106. These selected instructional units are based on current software used on the IBM PC: A) Lotus 1-2-3 Electronic Spreadsheet applications B) miscellaneous software as needed. Course is repeatable to a maximum of four credits. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

ACC 208 Microcomputer Applications in Intermediate Accounting I (1)
Prerequisite: ACC 108 or concurrent enrollment in ACC 108

Designed to meet today’s business needs for computer applications in accounting. Microcomputer applications of selected topics included in ACC 108. These selected instructional units are based on current software used on the IBM PC: A) The Profit Center B) Lotus 1-2-3 Electronic Spreadsheet applications C) miscellaneous software as needed. Course is repeatable to a maximum of four credits. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

ACC 212 Microcomputer Applications in Tax Accounting (1) (1, 0)
Prerequisite: ACC 112 or concurrent enrollment in ACC 112
Recommended: OTS 100

Designed to meet today’s business needs for computer applications in tax accounting. Microcomputer applications of selected topics included in ACC 112. These instructional units are based on current software used on the IBM PC: A) The Tax Accountant, B) Turbo Tax, C) miscellaneous software as needed. Course is repeatable to a maximum of four credits. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

ACC 215 Spreadsheet Applications in Managerial Accounting (1)
Prerequisite: ACC 105 or concurrent enrollment in ACC 105
Recommended: Knowledge of Lotus 1-2-3

Today’s businesses utilize electronic spreadsheet software to analyze accounting problems and to simplify the preparation of recurring accounting activities. The spreadsheet activities in this course are based on appropriate topics included in ACC 105. The selected electronic spreadsheet software is based on current software used on the IBM microcomputer. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

ACC 221 Payroll Accounting (2)
Prerequisite: ACC 100 or ACC 101

Introduces the processing of payroll. Emphasis is placed on legal requirements of withholding, employer’s taxes, and preparation of tax forms and reports. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

ACC 280 Financial Analysis/Spreadsheet Appl. (2)
Prerequisite: Grade of C or better in ACC 101 and ACC 203 or CIS 143 or consent of instructor. Can concurrently enroll in ACC 203 or CIS143

Study of how financial statements assist in financial predictions and how to calculate comparisons. Students will develop spreadsheet templates to perform all calculations. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Available

ACC 281 Financial Accounting Review (1)
Prerequisite: ACC 101

A refresher course in Principles of Financial Accounting. Topics to be covered include adjusting and closing entries, accounting for bad debts, inventory cost methods, depreciation, time value of money concepts, bonds and stock. (1.8) Spring, On Demand
Proficiency Credit Not Available
Pass/No Credit Available

ACCOUNTING-GENERAL STUDIES

The following ACC course is not intended for transfer and not applicable to any ECC degree, nor counted in the GPA.

ACC 102 Financial Accounting Review (1)
Prerequisite: ACC 101

A refresher course in Principles of Financial Accounting. Topics to be covered include adjusting and closing entries, accounting for bad debts, inventory cost methods, depreciation, time value of money concepts, bonds and stock. (1.8) Spring, On Demand
Proficiency Credit Not Available
Pass/No Credit Available
ANTHROPOLOGY / ARCHEOLOGY

ATR 110, 120, 210, and 220 fulfill the behavioral sciences requirement in the Associate in Arts, Associate in Science, Associate in Fine Arts and Associate in Engineering Degrees.

All ATR courses numbered 100 and above may be used to fulfill the behavioral science requirements for the Associate in Liberal Studies and Associate of Applied Science Degrees.

All ATR courses numbered 100 and above may also be applied to the major field and electives requirement in the A.A. and A.S. Degrees.

Selected archeology classes and archeological digs are sponsored in cooperation with Midwest Archeological Services.

ATR 110 Evolution and the Nature of Man (3) (3, 0)
Prerequisite: None
A non-technical review of representative theories and approaches concerning human “nature,” variability, and potentials; man's relation to other forms of life, to his fellow humans, and his ecological setting. Topics would include: history of evolutionary thought; evidence for and against evolution; racial classification; directions of natural selection's action; myths concerning I.Q. and race, aggression, and sex differences; and, the ethics of the “biological revolution.” (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Behavioral Sciences requirement. IAI Course Number: S1 900N
Proficiency Credit Available
Pass/No Credit Not Available

ATR 120 Introduction to Anthropology (3) (3, 0)
Prerequisite: None
Anthropology is aimed at increasing our understanding of other humans whether in “exotic” societies or our own. The concepts of evolution and culture have been used by anthropologists to develop a body of knowledge from which such understanding can come. These concepts will be applied as human diversity is examined. This course introduces the student to each of the major subfields of anthropology: physical anthropology, cultural anthropology, archeology and linguistics. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Behavioral Sciences requirement. IAI Course Number: S1 900N
Proficiency Credit Available
Pass/No Credit Not Available

ATR 170 Archeology of the Midwest (3) (3, 0)
Prerequisite: None
This course will examine the development of human culture in the Midwest U.S., primarily Illinois. There is strong evidence that people have lived in this area for at least the last 10,000 years. During this period, man's culture has changed greatly in terms of subsistence activity, social organization, settlement pattern and population size. This course will examine in detail the major archeological periods of Midwest prehistory and will discuss a wealth of archeological information about man's past and why this understanding is important to us today. (1.1) Summer, On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

ATR 180 Laboratory Methods in Archeology (3) (3, 0)
Prerequisite: None
In this class, students will be introduced to the post-excavation phases of archeological research. Classes of artifacts and debris will be discussed. Methods and theories concerning their analysis will be examined in an historical perspective. In addition, students will be given the opportunity to work with actual material from archeological sites and to take it through all stages of laboratory examination from curation to description. (1.1) Summer, On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

ATR 210 General Prehistoric Archeology (3) (3, 0)
Prerequisite: None
An in-depth exposure to the concepts, principles, and methods employed by archeologists and cultural anthropologists in the reconstruction of culture history and prehistory. Illustrations from world prehistory will be used to establish familiarity with sequences of cultural development that have been learned through archeological analysis. (1.1) Fall, On Demand
Fulfills the ECC/IAI General Education/Behavioral Sciences requirement. IAI Course Number: S1 903
Proficiency Credit Not Available
Pass/No Credit Not Available

ATR 220 Cultural Anthropology (3) (3, 0)
Prerequisite: None
This course introduces students to the diversity of human culture and presents a framework for understanding its differences. Culture, as the adaptive mechanism which provides for survival of the human species, is presented as an ever-changing expression of human values, behavior and social organization. Films and case studies are used to give the student an opportunity to experience culture in its many forms. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Behavioral Sciences requirement. IAI Course Number: S1 901N
Proficiency Credit Not Available
Pass/No Credit Not Available
COURSE DESCRIPTIONS

ATR 230 Field Archeology-Prehistoric (3)  (3, 0)
Prerequisite: None
Recommended: ATR 120

The course will introduce students to methods of archeological excavation and survey of prehistoric sites, through lecture and actual field participation. In the early part of the course, lecture will predominate while during the balance of the course, most time will be spent on learning techniques of site survey and excavation procedures. (1.1) Summer, On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

ATR 231 Field Archeology-Historic (3)  (3, 0)
Prerequisite: None
Recommended: ATR 120

The course will introduce students to methods of archeological excavation and survey of historic sites, through lecture and actual field participation. In the early part of the course, lecture will predominate while during the balance of the course, most time will be spent on learning techniques of site survey and excavation procedures. (1.1) Summer, On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

ATR 240 Topics in Archeology (3)  (3, 0)
Prerequisite: ATR 210 or consent of instructor

The course is designed to accommodate a wide range of special topics in archeology. It is envisioned that the course would focus on specific problems or concepts in archeology and develop them in greater detail than would be possible as part of other courses, i.e., General Prehistoric Archeology or Archeology of the Midwest. Repeatable to six credits. (1.1) Summer, On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

ARC WELDING
(See Welding)

ARC AND MIG WELDING
(See Welding)

ART

ART 115, 151, 154, and 155 may be used to fulfill the fine arts requirement in the Associate in Arts, Associate in Science, and Associate in Engineering Science Degrees.

ART 152 and 153 may be used to fulfill the fine arts requirement in the A.A., A.S. and A.E.S. Degrees; however, only one of these courses can count as general education.

ART 115, 151, 152, 153, 154, and 155 may be used to fulfill the liberal education requirement in the Associate of Applied Science Degree.

All ART courses numbered 100 and above may also be applied to the major field and elective requirement in the A.A. and the A.S. Degrees.

It is highly recommended that any student pursuing an A.A. Degree or an A.F.A. Degree with a major in art take ART 101, 102, 109, and 110 during the first year of study.

ECC reserves the right to exhibit any student work produced in art classes and to reproduce this work in any and all college publications.

ADVANCED ART PLACEMENT

Based on the score received on the Advanced Placement (AP) Examination in Art, credit is available for ART 101 (AP, 3 with portfolio).

ART 101 Drawing I (3)  (0, 6)
Prerequisite: None

An introduction to traditional techniques and skills of shading and blending. It explores a variety of drawing media including pencil, pen and ink, and charcoal. Students study a multitude of subject matter including objects, living things, architectural environments and conceptual themes. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

ART 102 Drawing II (3)  (0, 6)
Prerequisite: Grade of C or better in ART 101 or consent of instructor

Drawing II is a course which emphasizes refinement of basic drawing skills, exploration of a variety of drawing media (including those with color), development of individual creativity in addressing a variety of conceptual themes and evaluation of finished drawings. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

ART 103 Sculpture I (3)  (0, 6)
Prerequisite: None

Simple sculpture construction with a major emphasis in design, contour and mass. The materials to be incorporated into visual ideas are plastic, wood, metal, clay and found objects. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

ART 104 Sculpture II (3)  (0, 6)
Prerequisite: ART 103 or consent of instructor

Continuation of 103 Sculpture I with greater emphasis upon complex sculptural forms, such as contour and mass. Also you will work with different materials such as wood and bronze. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

ART 105 Ceramics I (3)  (0, 6)
Prerequisite: None

Studio work in the exploration of the uses of clay in pottery making. Techniques used in forming, decoration, glazing and firing of ceramics. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

ART 106 Ceramics II (3)  (0, 6)
Prerequisite: ART 105 or consent of instructor

A continuation of Ceramics I with a more indepth study of the uses of clay as an art form by producing pottery or ceramic sculpture. Illustration of techniques used in forming, decorating, glazing and firing of ceramics. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

ART 107 Painting I (3)  (0, 6)
Prerequisite: None

A beginning course in oil painting with introduction to the materials of oil painting, stretching canvas, painting properties, elements of color and composition. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available
ART 108 Painting II (3)  
**Prerequisite:** ART 107 or consent of instructor

A continuation of Painting I with emphasis on conceptual ideas. Students are also introduced to the medium of watercolor painting. (1.1) Fall, Spring

Proficiency Credit Available  
Pass/No Credit Not Available

ART 109 Design I (3)  
**Prerequisite:** None

An introduction to the study of the elements of design: line, form, shape, texture, color and value. This course also provides students with experience in the use of design principles and stresses conceptual development of ideas in a two-dimensional format. (1.1) Fall, Spring, Summer

Proficiency Credit Available  
Pass/No Credit Not Available

ART 110 Design II (3)  
**Prerequisite:** ART 109 or consent of instructor

Emphasis is on the structure of three-dimensional form and space. An introduction of basic three-dimensional design processes and how these relate to artist's concepts. Three-dimensional design ideas will be formulated and visualized through practice and utilization of various media and techniques. Slide presentations, lecture demonstrations, discussions and critiques are included. A continuation of basic design elements and principles, as they apply to three-dimensional form is stressed. (1.1) Fall, Spring

Proficiency Credit Available  
Pass/No Credit Not Available

ART 111 Jewelry I (3)  
**Prerequisite:** None

Varied use of materials in making of jewelry; casting, building and soldering. Emphasis on design. Laboratory fee does not include cost of metal. (1.1) Fall, Spring

Proficiency Credit Available  
Pass/No Credit Not Available

ART 112 Jewelry II (3)  
**Prerequisite:** ART 111 or consent of instructor

Continuation of 111 Jewelry I with greater exploration of conceptual and technical problems. (1.1) Fall, Spring

Proficiency Credit Available  
Pass/No Credit Not Available

ART 113 Printmaking I (3)  
**Prerequisite:** None

Introduction to the basic techniques and skills of Intaglio printmaking. (1.1) Fall, Spring

Proficiency Credit Available  
Pass/No Credit Not Available

ART 114 Printmaking II (3)  
**Prerequisite:** ART 113 or consent of instructor

The student has a choice of working in black and multicolor polyester mesh collagraphs, or linocut or woodcutting, or in aluminum plate lithography, or continuing in intaglio printmaking, using drypoint on Plexiglas or large zinc plates. (1.1) Fall, Spring

Proficiency Credit Available  
Pass/No Credit Not Available

ART 115 Art Appreciation (3)  
**Prerequisite:** None

Introduction to the visual arts. Designed to instill in the student an understanding of art as an influential force in present-day living. Emphasis on contemporary painting, sculpture and architecture as well as environmental art. (1.1) Fall, Spring, Summer

Fulfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F2 900

Proficiency Credit Available  
Pass/No Credit Not Available

ART 116 Color Theory Design (3)  
**Prerequisite:** ART 109 or consent of instructor

Introduction to the fundamentals of color theory, color harmony, and the use of color as an expressive device. (1.1) Fall, Spring

Proficiency Credit Available  
Pass/No Credit Available

ART 120 Fundamentals of Photography (3)  
**Prerequisite:** None

Introduction to the art and mechanics of black and white photography. The course includes basic camera operation, lab techniques, idea development processes, critical discussion and the study of photo/visual literacy. Students must provide their own cameras. (1.1) Fall, Spring, Summer

Proficiency Credit Available  
Pass/No Credit Available

ART 121 Intermediate Photography (3)  
**Prerequisite:** ART 120 or consent of instructor

Advanced problems in the art and mechanics of photography. The course includes a continuation of conceptual development skills as well as an introduction to experimental lab techniques. (1.1) Fall, Spring, Summer

Proficiency Credit Available  
Pass/No Credit Available

ART 151 History of Art I (3)  
**Prerequisite:** None

Historical analysis of painting, architecture, sculpture and other forms of the visual arts from prehistory to the Renaissance. (1.1) Fall, Spring  
Fulfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F2 901

Proficiency Credit Available  
Pass/No Credit Not Available

ART 152 History of Art II (3)  
**Prerequisite:** None

Historical analysis of art from the Renaissance to 1800 with major emphasis on architecture, painting and sculpture. (1.1) Fall, Spring  
Fulfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F2 902

Proficiency Credit Available  
Pass/No Credit Not Available

ART 153 History of Art III (3)  
**Prerequisite:** None

Historical survey of art of the 19th and 20th centuries with emphasis on painting, sculpture and architecture. (1.1) Fall, Spring  
Fulfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F2 902

Proficiency Credit Available  
Pass/No Credit Not Available

ART 154 Survey of Non-Western Art (3)  
**Prerequisite:** None

Survey of non-western art with emphasis on the historical cultures of Asia, Africa, Latin American and North America. (1.1) Fall, Spring  
Fulfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F2 903N

Proficiency Credit Not Available  
Pass/No Credit Not Available
ART 155 History of Photography (3) (3, 0)  
Prerequisite: None  
Historical survey of photography from 1839 to present, with major emphasis on the use of the medium as an art form. Examines the technical and aesthetic movement in the evolution of photography, while examining the impact of photography on culture and society. (1.1) On Demand  
Fulfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F2 904  
Proficiency Credit Available  
Pass/No Credit Not Available  

ART 200 Topics in Art (Variable Credit 1-3) (0-3, 0-7.5)  
Prerequisite: Consent of instructor  
This course offers an in-depth exploration and analysis of a specific artistic area. Selected area may be one of the studio arts or from the history of art. Repeatable to 12 credits. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available  

ART 201 Life Drawing (3) (0, 6)  
Prerequisite: ART 101 or consent of instructor  
A course designed to develop an awareness of the human form as it pertains to artistic expression. The course content includes the investigation of contour, gesture, weight and modeling light and shade, anatomy, proportion and composition. Development of a personal attitude or response towards the subject is also encouraged. (1.1) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available  

ART 290 Portfolio Preparation (2) (1, 2)  
Prerequisite: None  
Study of the elements necessary for the planning, organization and presentation of a comprehensive visual art portfolio. Course includes lectures and studio work on resume development, editing, mounting, matting, slide making and marketing. (1.1) Spring  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

ART 297 Independent Study in Art (Variable Credit 1-3) (1-3, 0)  
Prerequisite: Consent of instructor  
The student is to identify a special project and request advice and direction from the art faculty. The program will be carried out under the direction of one or more faculty members who will modify the proposal in accordance with departmental requirements for the credit involved. Repeatable to 12 credits. (1.1) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Not Available  

ASTRONOMY  
ATY 100 fulfills the physical sciences requirement for the Associate in Arts, Associate in Science and Associate in Fine Arts Degrees.  
ATY 100 may also be used to fulfill the science requirement for the Associate in Liberal Studies Degree.  
All ATY courses numbered 100 and above may be used to fulfill the science/math requirement in the Associate of Applied Science Degree.  
All ATY courses numbered 100 and above may also be applied to the major field and elective requirement in the A.A. and A.S. Degrees.  

ATY 100 Astronomy (3) (3, 1)  
Prerequisite: None  
Non-math, introductory survey course related to the fundamentals of astronomy and space science. Emphasis is placed on star constellation identification, astronomical instruments and their use (practical astronomy), descriptive astronomy, elementary celestial mechanics and theoretical astronomy. Designed for maximum use of the ECC telescopes and a planetarium maintained by school district U-46. (1.1) Fall, Spring  
Fulfills the ECC/IAI General Education/Physical Sciences requirement.  
IAI Course Number: P1 906  
Proficiency Credit Available  
Pass/No Credit Not Available  

ATY 101 Elementary Astronomy (3) (3, 0)  
Prerequisite: None  
A non-math, introductory survey course related to the fundamentals of astronomy and space science. Emphasis is placed on star constellation identification, astronomical instruments and their use (practical astronomy), descriptive astronomy, elementary celestial mechanics and theoretical astronomy. Designed for maximum use of the ECC telescopes and a planetarium maintained by school district U-46. (1.1) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Not Available  

AUTOMOTIVE  
All AUT courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.  
All repeatable AUT courses can be counted only once toward GPA and graduation.  

AUT 100 Small Engine Tune-Up, Overhaul & Diagnosis (4) (2, 4)  
Prerequisite: None  
Live overhaul and tune-ups on major manufacturers' engine types, both two and four cycle engines. Fuel systems, carburetion, governors and preventive maintenance procedures on small engines. (1.2) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available  

AUT 151 Automotive Engine Service and Repair (7) (5, 4)  
Prerequisite: None  
A comprehensive course to provide knowledge in the operation and repair of the automotive engine. Classroom and hands-on experiences combine to provide skills in all areas of engine service, including engine disassembly, inspection, measurement, and reassembly. Training is also provided on machining practices common to the automotive engine. Topics include cylinder head valve guide and seat service, piston and cylinder service, crack detection and cleaning practices. Repeatable to 14 credits. (1.2) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available
COURSE DESCRIPTIONS

AUT 152 Vehicle Maintenance and Tune-Up (2) (1, 3)  
Prerequisite: None  
Lab discussion course designed to give the student hands-on experience in vehicle maintenance and tune-up while also providing a systematic overview of the automotive service field. Group discussion and demonstration are combined with individual instruction packages to provide the proper atmosphere. Students will be allowed to perform tests and adjustments on the vehicle of their choice. (1.2) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Not Available

AUT 153 Manual Transmissions and Drivetrains (7) (5, 4)  
Prerequisite: None  
Lab work and lecture combine to present service skills in the repair of manual transmissions and drivetrain components. Instruction includes servicing clutches, front-wheel drive manual transaxles, drive shafts, rear-wheel drive manual transmissions and axle assemblies. Repeatable to 14 credits. (1.2) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available

AUT 155 Automotive Service Tools & Equipment (1) (1, 0)  
Prerequisite: None  
An introductory course designed to expose the student to a wide variety of automotive service tools. Lecture, discussion, and demonstrations are used to introduce various types of hand and power tools in terms of nomenclature, purpose, use, and care. Industry experts will be used to emphasize safety practices and enhance classroom activities. (1.2) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available

AUT 158 Automotive Machine Shop (3) (1, 4)  
Prerequisite: AUT 151  
A comprehensive course in automotive machine shop practices designed to provide the student with basic level service skills in several of the more common areas of automotive machining practices. Topics covered will include inspection and measurement equipment, cylinder head service, piston and cylinder service, and the use of the drill press, bench grinder, sand blaster, crack detection equipment, cleaning equipment, and the hydraulic press. (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

AUT 160 Automotive Electricity I (6) (4, 4)  
Prerequisite: None  
A course that will help unravel the mysteries that seem to surround electricity. Hands on experiences, demonstrations, and lecture are utilized to explore and understand electricity and electronics as they apply to the automobile. A working knowledge of basic electrical theory, electrical circuitry, wiring diagrams, electronics, and an understanding of automotive computer operation can be gained through this course. Use of test equipment, automobile body circuit, and accessory diagnostics are stressed. Repeatable to 12 credits. (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

AUT 163 Automotive Electricity II (4) (2, 4)  
Prerequisite: None  
An operation, diagnosis, and service approach is taken to provide knowledge of automotive batteries, starting, and charging systems. In-depth understanding of these systems can be gained from exposure to a wide variety of current test equipment and service techniques. Hands-on testing and repair is emphasized in the service of charging and starting systems. Repeatable to eight credits (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

AUT 171 Automotive Suspensions & Wheel Alignment (5) (3, 4)  
Prerequisite: None  
A comprehensive course providing service skills involving automotive suspension and steering systems. Shop exercises and lecture combine to provide knowledge regarding service procedures on front and rear suspension systems, wheels and tires, wheel balance, steering systems, and four-wheel alignment. Included is information on Macpherson struts, rack and pinion steering, and rear wheel alignment. Repeatable to 10 credits. (1.2) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available

AUT 172 Automotive Brake Systems (5) (3, 4)  
Prerequisite: None  
A service-oriented course that will provide experiences in all areas of brake repair. Topics will include drum brakes, front and rear disc brakes, hydraulic system service, machining drums and rotors, and anti-lock brake systems. An emphasis is placed on hands-on experience. Repeatable to 10 credits. (1.2) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available

AUT 180 Fuel & Ignition System Fundamentals (7) (5, 4)  
Prerequisite: AUT 160 or consent of instructor  
A course that will provide knowledge and service skills involving fuel and ignition systems. Instruction on fuel injection, carburetion, infrared testing, electronic ignition systems, diagnostic engine analyzers, and basic computer controls will be included. Carburetor overhaul, fuel injection service, oscilloscope testing, and ignition service will be part of the lab experiences. Repeatable to 14 credits. (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

AUT 253 Automatic Transmissions (5) (3, 4)  
Prerequisite: None  
An introductory course which covers the operation, service, and troubleshooting of front-and-rear-wheel drive automatic transmissions. Included are units on torque converters, transmission maintenance, overhaul, removal, and installation. Actual overhaul is performed on selected transmissions. Repeatable to 10 credits. (1.2) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available

AUT 271 Diagnostics and Engine Performance (7) (5, 4)  
Prerequisite: AUT 160 and AUT 180 or consent of instructor  
A continuation of AUT 180, this course provides an integration of fuel and ignition systems to provide an advanced understanding of operation and service. Diagnosis of fuel injection, computer-controlled ignition systems, and computerized engine controls is included. Emphasis is placed on operation and diagnosis of on-board computers as they relate to engine performance. Repeatable to 14 credits. (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

AUT 272 Service Management I (3) (3, 0)  
Prerequisite: AUT 151 and AUT 153 and AUT 160 and AUT 163  
A practical orientation to the management functions of various levels of automotive service. Areas of study will include everything from small independently owned gas stations to the large manufacturer supported dealerships. Field trips will be used to help the student become familiar with each level and type of operation. (1.2) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available
COURSE DESCRIPTIONS

AVIATION/GENERAL STUDIES

No AVN courses are counted toward graduation in the A.A. and A.S. Degrees. Additionally, they are not intended to transfer, nor are they counted in the GPA.

**AVN 101 Pilot Ground Instruction (3)**
- **Prerequisite:** None
- A comprehensive course in preparation for Federal Aviation Agency written examination for private pilot rating. Subjects to be covered are facts of flight, meteorology, radio communication, navigation, radio navigation and FAA regulations. Includes field trip to FAA air route traffic control center. Conducted by FAA certified flight and ground school instructor. (1.6) Fall, Spring
- Proficiency Credit Not Available
- Pass/No Credit Not Available

**AVN 111 Commercial Pilot (3)**
- **Prerequisite:** None
- A comprehensive course preparing the student for FAA written examination for the commercial pilot certificate, covering commercial flying navigation procedures. Repeatable to six credits. (1.6) Fall, Spring
- Proficiency Credit Not Available
- Pass/No Credit Not Available

**AVN 121 Instrument Pilot (3)**
- **Prerequisite:** None
- Comprehensive course in preparation for FAA written examination for IFR pilot rating. Emphasis is on instrument flying procedures. Repeatable to six credits. (1.6) Fall, Spring
- Proficiency Credit Not Available
- Pass/No Credit Not Available

**AVIATION PROFESSIONAL PILOT**

ATP courses are applicable toward the Associate in Arts and Associate in Science degrees. To enroll, students must first meet the following federal regulations.

- ability to read, speak and understand English
- a FAA second class medical certificate (first class medical certificate preferred)
- must be age 18 upon completion of all courses except for ATP 101

All ATP courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts Degree and Associate in Science Degree.

**ATP 101 Professional Pilot Private Rating (5)**
- **Prerequisite:** None
- The Private Pilot Training course is the first step to becoming a pro pilot and is designed to fulfill the requirements of the Federal Aviation Regulations for a private pilot certification course. This training program contains both a flight training syllabus and a ground training syllabus. The flight training syllabus has 50 hours of flight training, consisting of 25 hours of dual instruction and 25 hours of solo flight. During this flight instruction, the student will receive the required cross-country flight training, night flight, all specified maneuvers, and stage and final tests. The ground training syllabus consists of 50 hours to include block tests and final examination. Since the syllabus is designed to meet all of the requirements of the Federal Aviation Regulations, the student is assured the best training possible to become a professional pilot. (1.2) Fall, Spring, On Demand
- Proficiency Credit Available
- Pass/No Credit Not Available

**ATP 102 Professional Pilot Instrument Rating (5)**
- **Prerequisite:** ATP 101 or private pilot rating
- The Professional Pilot Instrument Rating course is designed to fulfill the requirements of the Federal Aviation Regulations for the instrument rating (airplane). This training program contains both a flight training syllabus and a ground training syllabus. The flight training syllabus provides at least 35 hours of flight training, and 50 hours of ground training. The student will receive the required cross-country flight training, pre-flight, departure, enroute, and arrival procedures, and stage and final tests. The ground training syllabus consists of 50 hours of ground training to include block tests and final examination. Since the syllabus is designed to meet all of the requirements of the Federal Aviation Regulations, the student is assured the best training possible. (1.2) Fall, Spring, On Demand
- Proficiency Credit Available
- Pass/No Credit Not Available

**ATP 103 Pilot Advanced Equipment and Navigation (3)**
- **Prerequisite:** ATP 101 or private pilot rating
- This course provides the professional student pilot with the theory, process, and operation of using advanced equipment and advanced systems that would be found within typical commercial flight operations. The student will also complete, or have completed, 50 hours of advanced cross-country flight work beyond their private pilot’s rating. (1.2) On Demand
- Proficiency Credit Available
- Pass/No Credit Not Available
ATP 201 Professional Pilot Commercial Rating (5) (3, 4)  
Prerequisite: ATP 101 or private pilot rating  
The Professional Pilot Commercial Rating course is designed to fulfill the requirements of the Federal Aviation Regulations for a commercial pilot certification course. This training program contains both a flight training syllabus and a ground training syllabus. The flight training syllabus has 155 hours of flight training, consisting of 70 hours of dual instruction and 85 hours of solo flight (many hours of dual and solo flight may have been accumulated during previous dual and solo flight instruction). During this flight instruction, the student will receive the required cross-country flight training, night flight, instrument flight, all specified maneuvers, complex airplane training and stage and final exams. The ground training syllabus consists of 50 hours of ground training to include block tests and final examination. Since the syllabus is designed to meet all of the requirements of the Federal Aviation Regulations, the student is assured the best training possible. (1.2) Fall, Spring, On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ATP 202 Professional Pilot Multi-Engine (3) (2, 2)  
Prerequisite: ATP 101 or private pilot rating  
The Multi-Engine Rating course is designed to fulfill the requirements of the Federal Aviation Regulations for additional aircraft rating courses. This training program contains both a flight training syllabus and a ground training syllabus. The flight training syllabus has a minimum of 15 hours of dual flight instruction which is divided into three stages. Each stage provides an important segment of training to include: basic multi-engine operations, emergency operations, all specified commercial and instrument maneuvers, and stage and final tests. The ground training syllabus consists of 15 hours of ground training to include stage and final examinations. Since the integrated system is designed to meet all of the requirements of the Federal Aviation Regulations, the student is assured the best training possible. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ATP 216 Certified Flight Instructor (CFIIA) (3) (2, 2)  
Prerequisite: ATP 101, ATP 102 and ATP 201  
The Certified Flight Instructor course is designed to fulfill the requirements of the Federal Aviation Regulations for the basic instructor course. This training program contains both a flight training syllabus and a ground training syllabus. The flight training syllabus for the basic instructor has ten hours of flight training on analysis of maneuvers, ten hours of practice instruction, and three hours of progress checks. During this flight instruction, the student will learn the analysis and performance of all the maneuvers required for private and commercial pilot certification from the right seat of the training airplane. Appropriate maneuvers and procedures will be practiced using visual and instrument references as indicated in the lesson content. The ground training syllabus consists of 45 hours of ground training to include briefing sessions, class discussions, practice ground instruction, stage and final exams, and exam debriefings. Since the syllabus is designed to meet all of the requirements of the Federal Aviation Regulations, the student is assured the best training possible. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ATP 217 Flight Instructor Instrument (CFIIA) (3) (2, 2)  
Prerequisite: ATP 101, ATP 102, ATP 201 & ATP 216  
The Certified Flight Instrument Instructor course is designed to fulfill the requirements of the Federal Aviation Regulations for the instrument instructor course. This training program contains both a flight training syllabus and a ground training syllabus. Since the syllabus is designed to meet all of the requirements of the Federal Aviation Regulations, the student is assured the best training possible. The Instrument Instructor flight training is ten hours of dual, ten hours of practice instruction, and three hours of progress checks. The ground training consists of 20 hours of briefing sessions, class discussions, and stage and final exams. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ATP 218 Flight Instructor Multi-Engine (CFIMEL) (3) (2, 2)  
Prerequisite: ATP 101, ATP 102, ATP 201 & ATP 202  
The Professional Multi-Engine Flight Instructor Pilot Training course is designed to fulfill the requirements of the Federal Aviation Regulations for the Multi-Engine Instructor course. This training program contains both a flight training syllabus and a ground training syllabus. The flight training syllabus for the CFIMEL has ten hours of flight training on analysis of maneuvers, ten hours of practice instruction, and three hours of progress checks. During this flight instruction, the student will learn the multi-engine performance of all the maneuvers required for private and commercial pilot certification from the right seat of the multi-engine training airplane. Appropriate maneuvers and procedures will be practiced using visual and instrument references as indicated in the lesson content. The ground training syllabus consists of 32 hours of ground training to include briefing sessions, class discussions, practice ground instruction, stage and final exams, and exam debriefings. Since the syllabus is designed to meet all of the requirements of the Federal Aviation Regulations, the student is assured the best training possible. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

Baking  
(See Culinary Management)

Banking-General Studies  
MMB courses are not intended to transfer and are not applicable to any ECC degree nor are they counted in the GPA.  

MMB 170 Principles of Bank Operations (3) (3, 0)  
Prerequisite: None  
An explanation of the fundamentals of banking giving an overview of the underlying reason for the existence of banking as an industry. The emphasis of the course is placed on the what and the why of the fundamentals; the how is only used as exemplification. (1.6) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available

Basic Nurse Assistant  
(See Nursing)

Behavioral Sciences  
(See Anthropology/Archeology, Psychology and Sociology)
BIOLGY

BIO 110, 113, 115, 135, and 150 fulfill both the life sciences requirement and the lab science requirement for the Associate in Arts, Associate in Science and Associate in Fine Arts Degrees.

All BIO courses numbered 100 and above, except BIO 101, fulfill the lab science requirement in the Associate in Liberal Studies Degree.

All BIO courses numbered 100 and above fulfill the math/science requirement for the Associate of Applied Science Degree.

All BIO courses may also be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

BIO 101 Nutrition for Today (3) (3, 0)
Prerequisite: None
Emphasis is placed on the fundamental concepts of nutrition and their relationship to current nutritional concerns. Nutrients are studied including: how they function, their sources, human requirements and effects of deficiencies. Topics covered include energy metabolism and balance, nutrient transformations and physical fitness. The course includes computerized nutrient analysis of student diets. (1.1) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Available

BIO 110 Principles of Biology (4) (3, 2)
Prerequisite: None
This biological science class introduces the concepts of: scientific method, characteristics of life, taxonomy, general chemistry, biochemistry, cell structure and function, cellular metabolism and photosynthesis, genetics, evolution, plant and animal tissues, human systems, and ecological principles. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Life Sciences (lab) requirement.
IAI Course Number: L1 900L
Proficiency Credit Available
Pass/No Credit Not Available

BIO 113 Molecular & Cellular Biology (4) (3, 2)
Prerequisite: DRP reading assessment score of 50 or higher, ACT English score of 20 or higher, or consent of instructor
This is one part of a two-semester biology sequence and includes an introduction to: basic chemistry; biochemistry; cellular function and processes; molecular genetics and biotechnology. (1.1) Fall
Fulfills the ECC/IAI General Education/Life Sciences (lab) requirement.
IAI Course Number: L1 900L
Proficiency Credit Not Available
Pass/No Credit Not Available

BIO 114 Organismal Bio, Evolution, Ecology (4) (3, 2)
Prerequisite: Grade of C or better in BIO 113
This is one part of a two-semester biology sequence and includes an introduction to: evolutionary processes and relationships, structure and function of major groups of microorganisms, fungi, animals, and plants with an emphasis placed on mammalian tissues and systems; and ecological principles. (1.1) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

BIO 115 Environmental Biology (4) (3, 2)
Prerequisite: None
A multidisciplinary lecture-laboratory course including aspects of physics, astronomy, geology, chemistry and biology. Emphasis is on interrelationships of the environment and how man is and has altered his ecosystem. Lecture topics include the "Origin of our Environment," and "Chemical Cycles," "Ecological Succession" and "Extinction and Alternative Energy." (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Life Science (lab) requirement.
IAI Course Number: L1 905L
Proficiency Credit Not Available
Pass/No Credit Not Available

BIO 120 General Microbiology (4) (2, 4)
Prerequisite: BIO 110 or counselor consent
Introduction to the study of micro-organisms with special emphasis on morphology, physiology, pathogenicity and economic importance of bacteria and viruses. Students participate in accomplishing laboratory experiments which are designed to acquaint the individual with laboratory procedures and sterile techniques. (1.1) Fall, Spring, Summer.
Proficiency Credit Not Available
Pass/No Credit Not Available

BIO 130 Human Anatomy & Physiology I (4) (3, 2)
Prerequisite: BIO 110 or counselor consent
Study of ten major organ systems: integumentary, skeletal, muscular, nervous, cardiovascular, respiratory, digestive, urinary, endocrine, and reproductive. Laboratory includes physiograph recordings of electrocardiogram, determination of blood pressure and respiratory volumes, blood typing, microscopic study of tissues, muscle physiology experiments. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Available

BIO 135 Human Anatomy and Physiology I (4) (3, 2)
Prerequisite: Grade of C or better in high school biology within the last five years or grade of C or better in BIO 110
Recommended: One year of high school chemistry or CHM 101 or CHM 112
First course in a two-semester sequence on Human Anatomy & Physiology. Designed for pre-health profession majors, especially those planning to transfer to four-year programs. Study of histology, general anatomical terminology and the following systems: integumentary, skeletal, muscular, and nervous. Laboratory topics include histology, bones, muscular anatomy, muscle physiology, reflexes, and neural anatomy. Laboratory exercises include working with tissue slides, skeletons (articulated and individual bones), sheep brain dissection, and use of various models. Cadaver demonstration and study is used for muscular anatomy and both in class and out of class cadaver time is required. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Life Science (lab) requirement.
IAI Course Number: L1 904L
Proficiency Credit Not Available
Pass/No Credit Not Available

BIO 136 Human Anatomy and Physiology II (4) (3, 2)
Prerequisite: Grade of C or better in BIO 130 or BIO 135
Recommended: One year high school chemistry or CHM 101 or CHM 112
Second course in two-semester sequence. Designed for pre-health professionals. The study of metabolism, electrolytes, acid/base balance, and the following systems: endocrine, cardiovascular, lymphatic, digestive, respiratory, urinary, and reproductive. Laboratory topics include anatomy & physiology of appropriate systems. Laboratory exercises include eye and heart dissections. Experiments include taking respiratory and cardiovascular data, appropriate video demonstrations of cardiovascular disorders, immune system function and reproductive topics. Cadaver demonstration and study is used for cardiovascular system and major organ systems. Both in class and out of class cadaver time is required. (1.1) Fall, Spring, Summer.
Proficiency Credit Not Available
Pass/No Credit Not Available

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BIO 150 General Botany (4) (3.2)
Prerequisite: None
Study of plant anatomy, growth and development under hormonal and environmental conditions, sexual and asexual reproduction, soil, plant nutrition and identification of the major families of flowering plants and their evolution. Laboratory sessions include: microscopic examinations, soil testing and modifications as well as the greenhouse growing of plants. This is a very practical class for everyone as well as a prerequisite for the major in Botany or Horticulture. (1.1) Fall, Spring, Summer

BUS 100 Introduction to Business (3) (3, 0)
Prerequisite: None
This basic business course introduces the types and kinds of business enterprises and ownership forms. Students examine the principles and practices of business operations; including management, human resources, marketing, operations, accounting, and finance. (1.1) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

BUS 101 Business Communications (3) (3, 0)
Prerequisite: None
Recommended: Keyboarding skills
Study of the process of communication, including techniques of listening, speaking, and writing. Emphasis is placed on business letters and memos, but other units include: telephone usage, multicultural communication, and the job application process. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

BUS 105 Personal Finance (3) (3, 0)
Prerequisite: None
Designed to build a professional awareness of the rights and role of the consumer into the background of business students so that the welfare and response of a consumer action will become part of the students’ decision-making process. Students intending to enter careers dealing directly with consumers will have an understanding of the rights and responsibilities of the organization to the consumer. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

BUS 112 Legal Environment of Business (3) (3, 0)
Prerequisite: Grade of C or better in ENG 101, placement in ENG 101, ACT score of 20 in English or DRP reading assessment score of 48 or higher
A course dealing with those aspects of law directly related to the business environment including: the Clayton Act, Federal Trade Commission, mergers, labor/management, employment, discrimination, consumer protection, and product liability. (1.1) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

BUS 113 Business Law (3) (3, 0)
Prerequisite: Grade of C or better in ENG 101, placement in ENG 101, ACT score of 20 in English or DRP reading assessment score of 48 or higher
Study of the law of contracts, agency, negotiable instruments and related topics. Case materials and problems are used. (1.1) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

BUS 120 Business Mathematics (3) (3, 0)
Prerequisite: None
A review of basic arithmetic using whole numbers, common and decimal fractions and percentages to develop a high level of skill. These skills are then applied in specific business applications including discounts, pricing, interest, payroll, depreciation, insurance, taxes, stocks and bonds, annuities and financial reports. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Available

BUS 121 Business Statistics (3) (3, 0)
Prerequisite: BUS 101 or ENG 101
Introduces the student to basic statistical principles and the procedures for applying statistical tools and techniques. Student learns to use simple analysis including measures of central tendency, dispersion, and skewness. Through the study of probability, discrete probability distributions (Binomial, Hypergeometric, Poisson, Uniform) and the normal distribution, a background for statistical inference is developed. Basic statistical inference is studied by using estimation, hypothesis testing, chi square analysis and linear regression and correlation. (1.1) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

BUS 140 Business Statistics (3) (3, 0)
Prerequisite: MTH 125 or MTH 112 or consent
Introduces the student to basic statistical principles and the procedures for applying statistical tools and techniques. Student learns to use simple analysis including measures of central tendency, dispersion, and skewness. Through the study of probability, discrete probability distributions (Binomial, Hypergeometric, Poisson, Uniform) and the normal distribution, a background for statistical inference is developed. Basic statistical inference is studied by using estimation, hypothesis testing, chi square analysis and linear regression and correlation. (1.1) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

BUS 142 Report Writing (3) (3, 0)
Prerequisite: BUS 101 or ENG 101
Includes the practical essentials for preparing written materials of all types and lengths for business and technical uses. Memos, business letters, bulletins, brief formal reports, full-range detailed reports and analysis may be included. Some review of grammar included. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

BUSINESS, GENERAL

All BUS courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

BUS 120 also fulfills the math requirement for the Liberal Studies Degree and the Associate of Applied Science Degrees.

Students who intend to transfer to another college/university in Business should see an ECC counselor regarding the selection of ECC courses prior to registering.

BRAKE & SUSPENSION SPECIALIST
(See Automotive)
COURSES DESCRIPTIONS

BUS 160 Survey of International Business (3) (3, 0)
Prerequisite: BUS 100 or consent of instructor
Basic course introducing international marketing, analysis of international business opportunities and market entry strategies, finances, and the impact of cultural environments upon such decisions. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available
NOTE: This course is offered concurrently as INS 160. The student must decide whether to earn credits in Business (BUS) or International Studies (INS) prior to enrolling.

BUS 162 International Business Protocol (2) (2, 0)
Prerequisite: Grade of C or better in BUS 100 or HTM 100 or concurrent enrollment in BUS 100 or HTM 100 or consent of instructor
The contemporary business traveler must be as prepared to deal with international business culture as he/she is to deal with the local business culture. This course is designed as a resource for business travelers to learn not only the customs, traditions, and protocol of the international business community but to understand the reasons and rationale behind them. In order to provide an optimum business environment, it is not enough for a business person to know how it's done. The successful professional must also know why it is done. The course presentation will emphasize protocol models the student will use for experiential application. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

BUS 280 Financial Analysis/Spreadsheet Appl. (2) (2, 0)
Prerequisite: Grade of C or better in ACC 101 and ACC 203 or CIS 143 or consent of instructor. Can concurrently enroll in ACC 203 or CIS 143
Study of how financial statements assist in financial predictions and how to calculate comparisons. Students will develop spreadsheet templates to perform all calculations. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available
NOTE: This course is offered concurrently as ACC 280. The student must decide whether to earn credits in Business (BUS) or Accounting (ACC) prior to enrolling.

CHEMISTRY

CHM 115 fulfills both the physical sciences requirement and the lab science requirement for the Associate in Arts, Associate in Science and Associate in Fine Arts Degrees.

CHM 101, 112, and 142 fulfill both the physical sciences requirement and the lab science requirement for the A.A., A.S., and A.F.A. Degrees; however, only one of these courses can count as general education.

CHM 142 fulfills both the physical sciences requirement and the lab science requirement for the Associate in Engineering Science Degree.

All CHM courses numbered 100 and above, except CHM 290, may be used to fulfill the math/science requirement for the Associate of Applied Science Degree and the lab science requirement for the Associate in Liberal Studies Degree.

All CHM courses numbered 100 and above may also be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

Four hours of CHM 115 may be counted toward graduation. Twelve hours of CHM 290 may be counted toward graduation.

ADVANCED CHEMISTRY PLACEMENT

Based on the score received on the Advanced Placement (AP) Examination in Chemistry, credit may be granted for CHM 142 (AP, 3) or both CHM 142 and CHM 143 (AP, 4), the latter with acceptable chemistry experimentation.

CHM 101 Preparatory Chemistry (5) (4, 2)
Prerequisite: None
Recommended: MTH 096 or concurrent enrollment in MTH 096 or a working knowledge of basic algebra
This course introduces basic chemical knowledge to those with no chemical background or those who need a “refresher” course. It includes such topics as atomic structure, periodic table, formulae, chemical equations, stoichiometry, and gas laws. Class time includes lecture, laboratory, and question sessions. The course is designed for chemistry majors as well as those in the pre-professional fields and meets the requirements for ECC’s Nursing R.N. Program. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Physical Sciences (lab) requirement. IAI Course Number P1 902L
Proficiency Credit Available
Pass/No Credit Available

CHM 112 Elements of Chemistry: General (5) (4, 2)
Prerequisite: Grade of C or better in CHM 101 or appropriate placement test score
The first course of a two semester sequence of general, organic and biological chemistry to meet needs of students of dental hygiene, forestry, agriculture and other allied health professions including nursing programs. (1.1) Fall
Fulfills the ECC/IAI General Education/Physical Sciences (lab) requirement. IAI Course Number P1 902L
Proficiency Credit Not Available
Pass/No Credit Available

CAREERS
(See General Student Development)

CATERING
(See Culinary Management)

CERAMICS
(See Art)

CHEF TRAINING
(See Culinary Management)
COURSE DESCRIPTIONS

CHM 115 Chemistry and Society (Variable Credit 3-4) (3-3, 0-2)
Prerequisite: None
Designed to give nonscience majors an understanding and working knowledge of how chemical materials affect their lives. An application of basic chemical principles to the study of life processes, food additives, plastics, drugs, energy materials production and utilization and pollution. (1.1) On Demand
Fulfills the ECC/IAI General Education/Physical Science (lab) requirement. IAI Course Number P1 903L
Proficiency Credit Available
Pass/No Credit Available

CHM 142 General Chemistry I (5) (4, 2)
Prerequisite: CHM 101 or high school chemistry or equivalent and MTH 112 or concurrent enrollment in MTH 112 or three semesters high school algebra
The first semester of a sequence course. A study of the fundamentals of chemistry including the periodic table of elements, basic bonding, heat and enthalpy of reactions, atomic and molecular structure, stoichiometry, physical states and solutions. Intended for science majors, engineering and pre-professional students. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Physical Sciences (lab) requirement. IAI Course Number P1 902L
Proficiency Credit Available
Pass/No Credit Not Available

CHM 143 General Chemistry II (5) (3, 6)
Prerequisite: CHM 142
A continuation of CHM 142 to include equilibrium, acids and bases; spontaneous change; electrochemistry and redox reactions; chemical kinetics; fundamental particles, particles and waves; complex ions, molecular orbitals and spectroscopy; order and symmetry in condensed phases; descriptive topics in inorganic chemistry, and nuclear chemistry. The accompanying laboratory will emphasize both qualitative and quantitative analysis. (1.1) Spring
Proficiency Credit Available
Pass/No Credit Available

CHM 170 Elementary Organic Chemistry (5) (4, 2)
Prerequisite: CHM 112 or CHM 142 or consent of instructor
Survey of organic chemistry covering nomenclature, structure, reactions, and synthesis of major classes of organic compounds including hydrocarbons, alcohols, aldehydes, ketones, carboxylic acid and amines. (1.1) Spring
Proficiency Credit Available
Pass/No Credit Available

CHM 221 Quantitative Analysis (4)
Prerequisite: CHM 143
Theory and practice of volumetric, gravimetric and instrumental methods of analysis. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CHM 234 Organic Chemistry (5)
Prerequisite: CHM 143
Basic course in organic chemistry especially designed for chemistry majors and those enrolled in pre-professional training. Studies cover covalent bonding, stereochemistry, spectroscopy, aromatic compounds, chemistry of alkanes, alkenes, alkynes, cyclic compounds, alcohols, phenols, ethers, and alkyl halides and organometallic compounds; conjugations, nucleophilic substitutions, and eliminations. (1.1) Fall
Proficiency Credit Not Available
Pass/No Credit Not Available

CHM 235 Organic Chemistry (5)
Prerequisite: CHM 234
Second semester covering the organic chemistry of the various functional groups including aromatics (electrophilic substitution), carboxylic acids and derivatives, dicarbonyl compounds, carbohydrates, aldehydes, ketones, amines, phenols, heterocyclic compounds, and amino acids and proteins. (1.1) Spring
Proficiency Credit Not Available
Pass/No Credit Available

CHM 290 Special Topics in Chemistry (Variable Credit 1-4) (0-2,0-6)
Prerequisite: CHM 143 or equivalent and consent of instructor
Designed to satisfy specific needs of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on special topic, and 2) course will increase skills and knowledge of chemistry. Course is repeatable three (3) times. (1.1) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

CHILD DEVELOPMENT
(See Early Childhood Education/Human Services)

CLINICAL LABORATORY TECHNOLOGY/PHLEBOTOMY

All CLT courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

CLT 100 Introduction to Clinical Lab Technology (2.5) (2, 1)
Prerequisite: Acceptance into Clinical Laboratory Technology program or program director consent
This introductory course will familiarize the student with the professional responsibilities of the clinical laboratory technician. Units on medical terminology, laboratory safety, infection control, use of diagnostic equipment, and quality control will be covered. Students develop basic phlebotomy skills in preparation for CLT 120. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

CLT 101 Phlebotomy (3) (3, 0)
Prerequisite: High school graduate or equivalent; DRP reading assessment score of 48 or higher or English ACT score of 20 or higher or grade of C or better in ENG 101
Students will learn basic techniques for blood specimen collection. Units on anatomy and physiology of the circulatory system, medical terminology, specimen processing, laboratory safety, infection control, quality control, and professional skills will also be covered. Students who wish to become certified as phlebotomy technicians must also complete 1.5 credits of CLT 120. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

CLT 105 Clinical Lab Assistant Skills I (2.0) (1, 2)
Prerequisite: Acceptance into Clinical Laboratory Assistant program or program director consent
The Clinical Laboratory Assistant is an important member of the clinical laboratory team. CLAs are responsible for specimen collection and processing, reagent preparation, instrument maintenance, and performance of basic laboratory tests. Units on medical terminology, laboratory safety, infection control, use of diagnostic equipment, quality control, customer service skills, and laboratory information systems will be covered. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available
COURSE DESCRIPTIONS

**CLT 106 Clinical Lab Assistant Skills II (3.0) (2, 2)**
**Prerequisite:** Grade of C or better in CLT 105 or program director consent

This course builds on the skills learned in CLT 105. Students will perform basic laboratory procedures in urinalysis, hematology, chemistry, microbiology, and immunology. Students who successfully complete CLT 105 and CLT 106 will be granted credit for CLT 100 in the Clinical Laboratory Technician program. (1.2) Spring

Proficiency Credit Available
Pass/No Credit Not Available

**CLT 110 Clinical Microscopy (3)** (2, 2)
**Prerequisite:** Grade of C or better in BIO 130 or BIO 136 and CLT 100 or CLT 106 or program director consent

Students will learn basic microscopy techniques used in performing body fluid analyses. Anatomy and physiology of the urinary system, renal disease states, diagnostic test principles and procedures, and clinical correlation of lab results will be covered. (1.2) Spring

Proficiency Credit Available
Pass/No Credit Not Available

**CLT 112 Clinical Hematology (3.5) (2, 3)**
**Prerequisite:** Grade of C or better in BIO 130 or BIO 136 and CLT 100 or CLT 106 or program director consent

Students will learn basic lab techniques used in performing hematology/hemostasis analyses. Hematopoiesis, hematologic disorders, diagnostic test principles and procedures, and clinical correlation of lab results will be covered. (1.2) Spring

Proficiency Credit Available
Pass/No Credit Not Available

**CLT 114 Clinical Immunology (2.5)** (2, 1)
**Prerequisite:** Grade of C or better in BIO 130 or BIO 136 and CLT 100 or CLT 106 or program director consent

Students will learn basic lab techniques used in performing serologic analyses. The immune system, the immune response in health and disease, diagnostic test principles and procedures, and clinical correlation of lab results will be covered. (1.2) Summer

Proficiency Credit Available
Pass/No Credit Not Available

**CLT 120 Clinical Lab Technology Practicum I (0.5-1.5) (0.1, 5-4.5)**
**Prerequisite:** Grade of C or better in CLT 100 or CLT 101 or program director consent

Practicum I will provide the student with supervised clinical experience in a phlebotomy setting. Students who have completed CLT 101 and earn 1.5 credits of CLT 120 are eligible to take a national certification exam for phlebotomy technicians. (1.2) Fall, Spring, Summer

Proficiency Credit Available
Pass/No Credit Not Available

**CLT 201 Clinical Chemistry (3.5)** (2, 3)
**Prerequisite:** Grade of C or better in CHM 143 or CHM 170 and CLT 100 or CLT 106 or program director consent

Students will learn basic lab techniques used in performing biochemical analyses. Units on carbohydrates, proteins, lipids, enzymes, hormones, electrolytes, and toxicology will include diagnostic test principles and procedures, instrumentation, and clinical correlation of lab results. (1.2) Fall

Proficiency Credit Available
Pass/No Credit Not Available

**CLT 212 Clinical Microbiology (3.5)** (2, 3)
**Prerequisite:** Grade of C or better in BIO 120 and CLT 100 or CLT 106 or program director consent

Students will learn sterile techniques used to isolate and identify microorganisms. Antibiotic susceptibility testing and clinical correlation of lab results will be covered. Supplemental units on parasitology, mycology, and virology will be introduced. (1.2) Fall

Proficiency Credit Available
Pass/No Credit Not Available

**CLT 214 Clinical Immunohematology (3)** (2, 2)
**Prerequisite:** Grade of C or better in CLT 114 or program director consent

Students will learn basic lab techniques used in blood typing, compatibility testing, and antibody identification. Other functions of the blood bank including donor blood collection, screening, and component processing will be covered. (1.2) Spring

Proficiency Credit Available
Pass/No Credit Not Available

**CLT 220 Clinical Lab Technology Practicum II (5) (0, 15)**
**Prerequisite:** Grade of C or better in CLT 110, CLT 112 and CLT 210 or program director consent

Practicum II will provide the student with supervised experience in a clinical laboratory. Student rotations will be scheduled in hematology and chemistry departments. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

**CLT 222 Clinical Lab Technology Practicum III (5) (0, 15)**
**Prerequisite:** Grade of C or better in CLT 114, CLT 212, and CLT 214 or program director consent

Practicum III will provide the student with additional supervised experience in a clinical laboratory. Student rotations will be scheduled in immunology, microbiology, and blood bank departments. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

**CLT 230 Clinical Lab Technology Conference (1)** (1, 0)
**Prerequisite:** Grade of C or better in CLT 120 and CLT 220 or program director consent

This capstone course will cover management and educational topics related to clinical laboratory science. Students will prepare personal portfolios, design and operate a mock laboratory, and review for certification exams. (1.2) Spring

Proficiency credit Available
Pass/No Credit Not Available

**CNC OPERATOR**
(See Industrial Manufacturing Technology)

**COMMERCIAL ART**
(See Graphic Design)
COMPUTER AIDED DESIGN & DRAFTING

All CAD or DFT courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

All repeatable CAD and DFT courses can be counted only once toward graduation and in the GPA with the exception of CAD 220 which may be counted for a total of four hours.

CAD 105 Pro/ENGINEER Basic Design Training (3) (2, 2)
Prerequisite: None
This course covers the basic functions needed to use Pro/ENGINEER to create parts, drawings, and assemblies. Emphasis is on the Pro/ENGINEER design philosophy used in creating parts and assemblies. Hands-on time with Pro/ENGINEER is maximized in this course. Labs are taught on the latest technology UNIX work stations. Both part and assembly design, along with basic drawing creation, are presented. Students construct "real world" parts and assemblies, with the instructor acting as an expert consultant. Students must be prepared to put in at least two-four hours of extra lab time each week. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

CAD 108 Introduction to Micro-CAD AutoCAD (3) (2, 2)
Prerequisite: None
Recommended: Knowledge of drafting and microcomputers
This course will provide the opportunity for students to familiarize themselves with the most popular micro-base computer aided drafting software available today-AutoCAD. The class consists of lectures and labs. The student will become familiar with window hardware configuration and basic system command. Course is repeatable to six credits. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

CAD 111 Pro/E Adv Part & Assembly Design (3) (2, 2)
Prerequisite: CAD 105 and EGR 102 or DFT 102 or concurrent enrollment in EGR 102 or DFT 102
This course, covering advanced topics and techniques used during part and assembly design, is structured for the experienced Pro/ENGINEER user to become more productive. Functionality in the Pro/FEATURE module is also covered. Labs are taught on the latest technology UNIX work stations. Students must be prepared to put in at least two-four hours of extra lab time each week. Repeatable to six credits. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

CAD 115 Pro/E Production Drawing & Detailing (3) (2, 2)
Prerequisite: CAD 111 and EGR 102 or DFT 102 or concurrent enrollment in EGR 102 or DFT 102 or consent of instructor
This course covers detailing and drafting capabilities utilized within Pro/ENGINEER to produce complete detailed drawings. Detailing and drafting functionality of Pro/ENGINEER and Pro/DETAIL is explained. Students use Pro/ENGINEER’s markup capabilities to check a drawing and Pro/REPORT to help document drawings. Students must be prepared to put in at least two-four hours of extra lab time each week. Course is repeatable to nine credits. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

CAD 188 Computer Graphics - Advanced AutoCAD (3) (2, 2)
Prerequisite: CAD 108 or consent of instructor
This course is designed for the advanced AutoCAD user. It will allow the student to explore the world of 3-D using AutoCAD software (wire-frame and surface modeling). In addition to basic 3-D commands, the student will be using AutoCAD’s AME (Advance Modeling Extension) and rendering packages. Upon completion, the student will have increased knowledge and efficiency using AutoCAD in the work place. Repeatable to nine credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

CAD 211 Pro/E Pro/SURFACE Basic FEM-POST (3) (2, 2)
Prerequisite: DFT 206 or DFT 207 or DFT 208 and CAD 111 or consent of instructor
This course covers advanced feature creation utilizing the Pro/SURFACE module. Surface feature and supporting geometry creation, manipulation, and technique are discussed. Functions for inspecting surface quality and verifying consistency between neighboring surfaces are also covered. The course also details how to create a finite element model from a Pro/ENGINEER model and submit the model for analysis using the Pro/MESH module. This course also covers how to investigate the results of the analysis using the Pro/FEM-POST module. Students generate various types of parametric surfaces and features used to create solid models. A variety of models are created to familiarize students with the course topics. Students must be prepared to put in at least two-four hours of extra lab time each week. Course is repeatable to six credits. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

CAD 215 Pro/E Super User Training (3) (2, 2)
Prerequisite: CAD 211 or consent of instructor
This course is intended for the advanced Pro/ENGINEER user who has fulfilled the prerequisite and is interested in expanding his/her Pro/ENGINEER knowledge. Students work with advanced modeling, assembly, and drawing techniques, topics that have been specifically identified by experts for inclusion in this class. Specially designed exercises show how to understand and implement these advanced techniques. Students will also learn advanced methods of data interface, data management, and configuration customization. Students must be prepared to put in at least two-four hours of extra lab time each week. Course is repeatable to nine credits. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

CAD 219 Introduction to AutoLISP Programming (2) (1, 2)
Prerequisite: Grade of C or better in CAD 118 or consent of instructor
This course is for advanced AutoCAD users. AutoLISP is the interactive programming language that uses macros and functions for graphic applications. This class provides a working knowledge of AutoLISP and programming concepts within AutoCAD environment. Upon completion of this course the student should be able to write and debug a simple AutoLISP program. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

CAD 220 Independent Research: Computer-Aided Design (Variable Credit 1-4) (0, 2-8)
Prerequisite: Demonstrated ability to excel in an area of interest and consent of instructor
Designed to increase the learning opportunities for those students desiring to expand their knowledge and skills beyond that which are presently offered in regular CAD classes. Areas of study, under the supervision of an instructor, would include such areas as plastic mold design, FEM, advanced auto-route, auto-place, advanced surfacing and shading techniques, robographics, CAE, NEWVAR and P.C. manufacturing. Course is repeatable three (3) times up to eight credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

DFT 101 Basic Technical Drawing Skills (4) (2, 4)
Prerequisite: MTH 107 or MTH 098 or concurrent enrollment in MTH 107 or MTH 098
This course will consider the theory of shape description, dimensioning, sections and conventions, primary and secondary auxiliary views, threads, fasteners, pictorial description, and the algebra, trigonometry, and computer skills necessary to solve technical problems. Repeatable to 12 credit hours (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available
DFT 102 Descriptive Geometry (4)  (2, 4)
Prerequisite: DFT 101 or EGR 101
Descriptive geometry teaches the student how to draw and calculate three-dimensional problems. Successful completion of the course will allow the student to complete all graphics problems. The calculation of these problems is carefully taught and the writing is introduced. Repeatable to 12 credit hours. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

DFT 206 Industrial Design Problems (4)  (2, 4)
Prerequisite: DFT 102 or EGR 102 and MTH 109 or MTH 112 or concurrent enrollment in MTH 109 or MTH 112
Study of actual and theoretical industrial drafting problems. Emphasis on use of specifications, standards and newest materials using current industrial drafting practice. Complete engineering with assembly, detail drawings and bill of materials is accomplished by the student. Combines lecture and laboratory. Repeatable to 12 credit hours. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

DFT 207 Applied Math for Drafting & Design (3)  (2, 2)
Prerequisite: MTH 109 or MTH 112 or concurrent enrollment in MTH 109 or MTH 112
Applied math for drafting and design is designed primarily to teach the student how to apply and use plane and solid arithmetic, algebra, three-dimensional problems using trigonometry, algebra and descriptive geometry in all engineering and technical problems. There will be heavy concentration in this area with lesser concentration on measuring instruments and math problems relating to design generated by our environment. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

DFT 208 Applied Descriptive Geometry & Statics (5)  (2, 6)
Prerequisite: DFT 102 and MTH 109 or MTH 112 or concurrent enrollment in MTH 109 or MTH 112
Applied descriptive geometry and statics course context allows the student to apply the skills learned in descriptive geometry for the solution of technical engineering problems. The problems are first drawn out graphically, then calculated by two or more mathematical methods and all problems are programmed for computer solutions. DFT 208 also consists of statics, dynamics, kinematics, kinetics, mechanisms, and hydraulics. Through the study of these disciplines the student is taught how to design and layout the products of industry and the structures of civil engineering. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

DFT 234 Special Topics in Drafting (1)  (5, 1)
Prerequisite: Consent of instructor
Designed to satisfy specific needs or interest of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on specific topic; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of drafting. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

DFT 235 Special Topics in Drafting (2)  (1, 2)
Prerequisite: Consent of instructor
Designed to satisfy specific needs or interest of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on specific topic; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of drafting. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

DFT 236 Special Topics in Drafting (3)  (1, 4)
Prerequisite: Consent of instructor
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on specific topic; 2) comprehensive outlines for each topic; and 3) course should be designed to increase skill and knowledge in field of drafting. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

COMPUTER AIDED MANUFACTURING

(See Industrial Manufacturing Technology)

COMPUTER & INFORMATION SCIENCES

All CIS courses numbered 100 and above may be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

All repeatable CIS courses can be counted only once toward graduation and in the GPA.

Persons wishing to learn computer keyboarding or word processing should refer to Office Administration Technology classes.

ADVANCED COMPUTER & INFORMATION SCIENCES PLACEMENT

Based on the score received on the Advanced Placement (AP) Examination in Computer & Information Sciences, credit is available for CIS 110 for Computer Science A (AP, 3), for CIS 110 for Computer Science AB (AP, 2), or for Computer Science AB for both CIS 110 and CIS 121 (AP, 3).

CIS 105 Programming in ‘BASIC’ (4)  (4, 0)
Prerequisite: Grade of C or better in MTH 098 or grade of C or better in two years of high school algebra or consent of instructor
An introduction to program design and structured programming techniques using the BASIC language. Aids such as flowcharts and pseudocode will be used to develop techniques for sound, logical computer solutions. Topics will include storage and variables, basic programming structures, procedures and functions, parameter passing, arrays, and data files. Visual BASIC will be introduced towards the conclusion of the course. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

CIS 110 Introduction to Computers (3)  (3, 0)
Prerequisite: None
Recommended: CIS 098 or equivalent
This introductory course is designed to familiarize students with the general concepts of computer and information sciences. The course will introduce students to the features and uses of common applications software such as word processing, spreadsheet, database, and graphics, presentation software, operating systems such as Windows 95, and the Internet. An overview of the variety of careers involving computers will be presented. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

CIS 116 Computer Programming-COBOL I (5)  (4, 2)
Prerequisite: Grade of C or better in CIS 105 or CIS 121 or consent of instructor
This course is a laboratory course in computer programming using COBOL. Topics covered are decisions, multiple level control breaks, single and multilevel tables, master file updates, sorting and searching techniques, and interactive programming. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available
CIS 121 Computer Science I (4) (4, 0)  
**Prerequisite:** Grade of C or better in MTH 098 or in two years high school algebra or consent of instructor  
This course is an introduction to computer programming, emphasizing a disciplined approach to problem-solving and algorithm development. Students will learn program design and structured programming techniques using selection, repetition, and sequence control structures. Topics will include storage and variables, procedural and data abstraction, parameter passing, arrays, records, data files, program-testing, documentation, and proper programming style. (1.1) On Demand  
Proficiency Credit Available  
Pass/No Credit Available

CIS 123 Computer Science for Engineers (4) (4,0)  
**Prerequisite:** Grade of C or better in MTH 133, or equivalent college credit or consent of instructor  
This course is an introduction to computer programming with a strong emphasis on mathematical applications relevant to science and engineering. Students will learn a disciplined approach to problem-solving and algorithm development using selection, repetition, and sequence control structures. Programming topics will include an introduction to basic hardware and operating systems, storage and variables, procedural and data abstraction, parameter passing, arrays, strings, data files, error-handling, program-testing, documentation, and proper programming style. Mathematical topics will include matrices, linear interpolation, convergence, linear regression, roots of functions, solution of simultaneous linear equations, graphing, and numerical integration. This course will be taught using the C++ programming language. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

NOTE: This course is offered concurrently as MTH 123. The student must decide whether to earn credits in Computer and Information Sciences (CIS) or Mathematics (MTH) prior to enrolling.

CIS 124 Introduction to C++ for Programmers (4) (4,0)  
**Prerequisite:** Grade of C or better in CIS 105 or CIS 121 or consent of instructor  
This is the first course in the C++ programming language for students who have already had at least one college-level programming course. This course will give students a good foundation in programming with C++ in preparation for CIS 224 C++ Object-Oriented Programming. Topics will include all of the basics of the C++ language, including pointers, concluding with an introduction to classes and object-oriented programming. This course covers all the language aspects covered in Computer Science I and Computer Science II without coverage of all the programming topics in those courses. It will be assumed that students entering this course have a good working knowledge of variables and types, condition statements, loops, procedures and arrays. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

CIS 127 Discrete Structures (3) (3,0)  
**Prerequisite:** Grade of C or better in MTH 112 and CIS 121 or CIS 123 or consent of instructor  
This course is an introduction to analysis of finite collections and the mathematical foundations of computing. It is intended for students intending to major in Computer Science. Topics include computer system design, data structures, algorithms, sets, logic, arrays and vectors, number systems, counting, recursion, graph theory, trees, and Boolean algebra. Students will explore these topics by writing computer programs to apply and test the concepts they learn. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

CIS 128 Web Page Markup Language (2) (2,0)  
**Prerequisite:** CIS 105, CIS 110 or CIS 121 or consent of instructor  
This course concentrates specifically on the syntax of web page markup languages. It is intended for those who wish to have more control over their web pages by being able to adjust what is created by page design software, and more importantly for those who will use this information for automatic page generation in their programming courses. All page editing will be done using a simple text editor or by writing text files from a computer program written in class. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

CIS 142 Database Software (2) (2, 0)  
**Prerequisite:** None  
**Recommended:** CIS 110 or CIS 144 or familiarity with Microsoft Windows  
This course teaches the student how to create and use a computer data base system as well as how to create reports, data entry screens, write simple applications, troubleshoot database problems, and perform advanced queries. See the schedule for the specific software package used. Course is repeatable to eight credits. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Available

CIS 143 Spreadsheet Software (2) (2,0)  
**Prerequisite:** None  
**Recommended:** CIS 110 or CIS 144 or familiarity with Microsoft Windows  
This course teaches beginning through advanced topics including basic spreadsheet manipulation, graphs, data base features, and macros. It is designed for students who are new to spreadsheets and want to get the most out of them for use at home or office. See the schedule for specific software packages used. Course is repeatable to eight credits. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Available

CIS 144 Introduction to Windows (1) (1, 0)  
**Prerequisite:** None  
This course is an introduction to using the Microsoft Windows operating system. Students will learn the basics for using all Windows applications. Several of the applications included with Windows will be introduced. Course is repeatable to four credits. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Available

CIS 145 Introduction to Desktop Publishing (2) (2,0)  
**Prerequisite:** None  
**Recommended:** CIS 110 or CIS 144 or familiarity with Microsoft Windows  
This course will teach the desktop publishing fundamentals and advanced techniques necessary for the student to be able to create attractive brochures and flyers. Course is repeatable to eight credits. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Available

CIS 147 Internet Publishing (1) (1, 0)  
**Prerequisite:** None  
**Recommended:** CIS 110 or CIS 144. Students should have prior experience browsing the Internet's World-Wide Web and using Microsoft Windows.  
This course will introduce the basics of creating and publishing web pages on the Internet. Students will learn HTML (Hypertext Markup Language) and how to publish their HTML pages on an Internet server using FTP (File Transfer Protocol) and how to use a WYSIWYG web page editor. The topics will include the basic markup codes, linking to other pages, graphics, lists, tables, multimedia, and an introduction to forms and CGI. Students will create their own “web” on a server. Course is repeatable to four credits. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

CIS 148 Web Page Markup Language (2) (2,0)  
**Prerequisite:** CIS 105, CIS 110 or CIS 121 or consent of instructor  
This course concentrates specifically on the syntax of web page markup languages. It is intended for those who wish to have more control over their web pages by being able to adjust what is created by page design software, and more importantly for those who will use this information for automatic page generation in their programming courses. All page editing will be done using a simple text editor or by writing text files from a computer program written in class. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

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COURSE DESCRIPTIONS

CIS 150 Help Desk Fundamentals (2) (2.0)
Prerequisite: CIS 221 or CIS 222
This course is designed to provide the student with help desk specific people skills. This course will teach students the fundamental concepts of help desk and customer service, and focus on the four key elements to effective help desk operation: people, processes, technology, and information. It will provide real world computer support examples, case studies, and exercises. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 155 Data Communications & Networking I (3) (3.0)
Prerequisite: Grade of C or better in CIS 230 or consent of instructor
This course covers the basics of data communications, telecommunications, and networking. It explains how computer systems are interconnected to communicate in a large system. The emphasis in this course is on three major areas: the hardware (modems, network interface cards, hubs, bridges, routers, and gateways,), the transmission medium (twisted pair, thin coax, thick coax, fiber, wireless, etc.), and the standards/protocols used in modern networked computer systems. The user, the operating system, and the applications programs are for the most part treated as black boxes, detailed only with respect to how their functions interface. It reviews computer system concepts and principles (relating to device drivers, hardware interrupts [IRQs], software interrupts [SWIs] and asynchronous file transfers) and introduces the student to the following: Network Types, Network Topologies, Network Adapter Cards, OSI and IEEE standards, Network Access Methods, Network Protocols, Basic Network Operating Systems, Resources Sharing, Wide Area Network (WAN) Technologies, Internets , and Intranets. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

CIS 205 Visual Programming (4) (4.0)
Prerequisite: Grade of C or better in CIS 105 or CIS 121 or CIS 124 or consent of instructor
Recommended: CIS 110 or CIS 144 or familiarity with Microsoft Windows
This course teaches how to program with a “visual” programming language, such as Visual Basic. You will learn to write software using the various controls available in a graphical user interface, and learn how to best design programs using those controls. An important emphasis will be data access, manipulation, and queries with the available data controls. Course is repeatable to sixteen credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 206 Advanced Visual Programming (3) (2.2)
Prerequisite: Grade of C or better in CIS 205 or consent of instructor
Advanced topics with a visual programming language such as Visual Basic. Topics such as database variables, optimization, Internet access, dynamically-linked libraries, the system registry, random access file, and advanced controls will be covered. When multiple sections are offered with different programming languages, students should take CIS 205 with the same language prior to CIS 206. Course is repeatable to twelve credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 207 Java Programming (4) (4.0)
Prerequisite: Grade of C or better in CIS 105 or CIS 121 or CIS 124 or consent of instructor
Introduction to the language Java, with an emphasis on creating applets for the Internet. The first half of the course will introduce Java programming using Sun’s Java Development Kit. The second half will use a visual development environment for rapid applet creation and deployment. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 210 Database Programming (3) (3.0)
Prerequisite: Grade of C or better in CIS 110 and CIS 105 or CIS 121 or consent of instructor
This course is about types of database storage and how to access and manipulate data through programming. Design and manipulation of relational databases will be emphasized, and students will learn Structured Query Language (SQL). Students will learn about types of database systems available for network and Internet delivery of data, and about the security issues involved. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 215 Multimedia Technologies (2) (2.0)
Prerequisite: Grade of C or better in CIS 110 or consent of instructor
This course is an introduction to software and hardware used for graphics, sound, and motion video. Students will learn to use basic presentation software, and they will learn the basics of multimedia types and delivery on the Internet. Topics will include image formats, scanners, image editing software, audio and video formats, software recording and playback, and multimedia streaming on the web. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 219 Computer Programming-ASSEMBLER (4) (4.0)
Prerequisite: CIS 116 or CIS 124
Introduction to programming with a machine oriented language. ASSEMBLER level language used throughout with emphasis on business applications. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

CIS 221 Computer Operating Systems/Microsoft (4) (4.0)
Prerequisite: CIS 121 or CIS 230
This introductory course in computer operating systems is designed to familiarize the student with the general concepts of operating systems. The basic definition of an operating system will be “a collection of programs used to allocate, control, and manage system resources.” The course is designed to support the Compaq DOS and Windows Objective and to help prepare the student for that portion of the A+ exam. The course will utilize the single-user, single-tasking MS-DOS to illustrate basic concepts and will utilize MS-Windows to illustrate more complex concepts. The course is lecture and lab, involving explanation and hands-on application of operating system concepts. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

CIS 222 Computer Operating Systems/Linux (4) (4.0)
Prerequisite: CIS 121 or CIS 230
This introductory course in computer operating systems is designed to familiarize the student with the general concepts of operating systems. The basic definition of an operating system will be “a collection of programs used to allocate, control, and manage system resources.” This course covers the essentials of installing, configuring, maintaining, and troubleshooting the Linux Operating System. It utilizes hands-on projects and step-by-step instruction to provide the user with a firm understanding of Linux. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 223 Computer Science II (4) (4.0)
Prerequisite: Grade of C or better in CIS 121, CIS 123 or MTH 123 or consent of instructor
This second course in computer science introduces more advanced topics in programming, with emphasis on data structures and file manipulation. Topics will include design and implementation of large-scale problems, program verification, dynamic memory allocation, data structures, file processing, and an introduction to object-oriented programming. This course will be taught using the C++ programming language. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Available
CIS 224 C++ Object-Oriented Programming (4)  
Prerequisite: Grade of C or better in CIS 124 or consent of instructor

This course covers object-oriented programming techniques and data manipulation using the language C++. Emphasis is on data structures and file handling. Topics will include linked lists, binary trees, stacks, queues, searching and sorting, sequential and random access files, and testing program efficiency. Course is repeatable to sixteen credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

CIS 226 Computer Science II (4)  
Prerequisite: CIS 223 or consent of instructor

This course concentrates on algorithms, algorithm analysis, and advanced data structures. Algorithm approaches such as divide-and-conquer, dynamic, greedy, and back-tracking are considered. Complexity analysis is used to compare algorithm efficiency. Students will learn further use of object-oriented programming to implement ADTs such as graphs, sets, heaps, and hash tables. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 227 Computer Organization (3)  
Prerequisite: Grade of C or better in CIS 127 or concurrent enrollment in CIS 127 or consent of instructor

This is a course in basic computer architecture. The function of the CPU, memory systems and organization, input/output devices, busses and interrupts will all be included. Students will learn basic digital logic, instruction sets, microprogramming, and assembly language. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 229 Computer Science Independent Study  
(Variable Credit 2-6)  
Prerequisite: Demonstrated ability to excel in an area of interest with consent of instructor

This course permits the student to do research in a particular area of his/her interest in computer science with minimal assistance from the instructor. Course is repeatable to six hours. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

CIS 230 Computer Hardware (3)  
Prerequisite: Grade of C or better in CIS 110 or consent of instructor

Introduction to computer hardware, utilizing systems based on Intel and AMD microprocessors, running under MS-DOS/MS-Windows operating systems. The course covers system design details, through theoretical lectures and practical construction, how various pieces of electronic hardware (Input devices, Output devices, Processing devices, and Storage devices) operate and interface with 1) the user, 2) the operating system, and 3) application programs to convert data into useful information. All aspects of the computer system will be covered, including power sources and protection, the BIOS interface, system busses (ISA, EISA, MCA, VESA, PCI), chipsets, primary storage (memory), secondary storage standards and interfaces, video processing and display standards and technologies, sound processing techniques, and communications connectivity standards. Course is repeatable to twelve credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

CIS 233 Special Topics in Computer Science (.5)  
Prerequisite: None

Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on special topic; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of data processing. Repeatable to two credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 234 Special Topics in Computer Science (1)  
Prerequisite: None

The course is designed to satisfy specific needs or interests of students and the community. The topics covered in this course vary from section to section and semester to semester. However, the goal of each section is to increase your skill and knowledge in the field of data processing. Course is repeatable to eight credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 235 Special Topics in Computer Science (2)  
Prerequisite: None

Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on special topic; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of data processing. Course is repeatable to twelve credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 236 Special Topics in Computer Science (3)  
Prerequisite: None

Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on special topic; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of data processing. Course is repeatable to twelve credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 237 Special Topics in Computer Science (4)  
Prerequisite: None

The course is designed to satisfy specific needs or interests of students and the community. The topics covered in this course vary from section to section and semester to semester. However, the goal of each section is to increase your skill and knowledge in the field of data processing. Course is repeatable to eight credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 238 Special Topics in Computer Science (5)  
Prerequisite: None

The course is designed to satisfy specific needs or interests of students and the community. The topics covered in this course vary from section to section and semester to semester. However, the goal of each section is to increase your skill and knowledge in the field of data processing. Course is repeatable to twelve credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 247 Internet Programming (4)  
Prerequisite: Grade of C or better in CIS 105 or CIS 121 or consent of instructor

This course will teach various ways to write programs that can be used over the Internet. The actual topics may change from semester to semester as the Internet itself continues to evolve. Students will learn client-side and server-side scripting using one or more common Internet programming languages, how to gather form data into a database, and how to deliver database information over the web. Course is repeatable to 16 credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 248 Database Management (4)  
Prerequisite: Grade of C or better in CIS 105 or consent of instructor

This course provides the student with in-depth knowledge of database management systems, tables, queries, and file handling. Topics include sequential and random access files, and testing program efficiency. Course is repeatable to twelve credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

CIS 250 Data Communications & Networking II (3)  
Prerequisite: Grade of C or better in CIS 155 or consent of instructor

This course provides the student with in-depth knowledge of routers, routing tables, and routing protocols with exposure to IP packet filtering. The student will receive extensive, hands-on experience with the TCP/IP protocol in an internetworking environment. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CIS 251 Network Security (3)  
Prerequisite: CIS 250 and CIS 255 or CIS 257 or CIS 259

This course provides the student hands-on experience with Network Security. The course will use Linux to develop the concept of packet filtering and firewalls and also use Microsoft Proxy Server. Included will be a focus on helping internetworking professionals identify security threats, plan and implement security across various platforms, and set security countermeasures from the client through the server. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available
COURSE DESCRIPTIONS

CIS 254 Network Administration/Novell (3) (3, 0)  
Prerequisite: Grade of C or better in CIS 221 or consent of instructor  
This course is designed to provide students with the course work and lab experience necessary to plan, install, manage and maintain local area network (LAN) hardware, software, and security with Novell soft- 
ware. Students will install network (client/server) operating systems on systems in an Ethernet environment, and act as system managers to set up user and group accounts, administer user and group accounts, secure network resources, manage network print functions, audit resources and events and manager system policies. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

CIS 255 Serving the Internet/Novell (3) (3, 0)  
Prerequisite: Grade of C or better in CIS 254 or consent of instructor  
This course provides the student with a platform for building and managing a secure e-business network. When combined with the NDS eDirectory, the Novell iChain permits management of a company’s entire infrastructure as one cohesive network rather than managing multiple web sites, intranets and extranets. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

CIS 256 Network Administration/Microsoft (3) (3, 0)  
Prerequisite: Grade of C or better in CIS 221 or consent of instructor  
This course is designed to provide students with the course work and lab experience necessary to plan, install, manage and maintain local area network (LAN) hardware, software, and security with Microsoft software. Students will install network (client/server) operating systems on systems in an ethernet environment, and act as system managers to set up user and group accounts, administer user and group accounts, secure network resources, manage network print functions, audit resources and events and manage system policies. Course is repeatable to 12 credits. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

CIS 257 Serving the Internet/Microsoft (3) (3, 0)  
Prerequisite: CIS 256  
This course is designed to provide students with the course work and lab experience necessary to plan, install, manage, and maintain an Internet Information Server. This course will use both Web and FTP servers from Microsoft designed to operate on a Windows Server platform. Completion of this course should prepare the student to fully design, create, deploy, and manage Web sites. Course is repeatable to 12 credits. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

CIS 258 Network Administration/Linux (3) (3, 0)  
Prerequisite: Grade of C or better in CIS 222 or consent of instructor  
This course is designed to provide students with the course work and lab experience necessary to plan, install, manage and maintain local area network (LAN) hardware, software, and security using Linux. Students will install network (client/server) operating systems on systems in an ethernet environment, and act as system managers to set up user and group accounts, administer user and group accounts, secure network resources, manage network print functions, audit resources and events and manage system policies. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

CIS 259 Serving the Internet/Linux (3) (3, 0)  
Prerequisite: CIS 258  
This course is designed to provide students with the course work and lab experience necessary to plan, install, manage, and maintain a Web Server using Linux and Apache. Completion of this course should prepare the student to fully design, create, deploy, and manage Web sites. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

CIS 260 Applied Technical Support (3) (2, 2)  
Prerequisite: Consent of Instructor  
This course will provide the student with opportunities to diagnose, troubleshoot, and repair various network based applications, running on various microcomputer systems, under various operating systems and network operating systems in both peer-to-peer and client/server models. After proper Local Area Network (LAN) indoctrination, the student will be assigned to various help desk/field service tasks. These tasks deal with system expansion, upgrade, maintenance, and preventive maintenance. Typical problems encountered will involve defective hardware, data communications interruptions, application program errors, user errors, local and network data recovery, virus elimination and LAN upgrades. The student will be expected to observe safety precautions and maintain a trouble call database. Course is repeatable to twelve credits. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available

CIS 262 Applied Programming (3) (1, 4)  
Prerequisite: Consent of Instructor  
This course will require students to apply their previous training in computer science to one or more large-scale programming tasks. Projects will be data-intensive and require a variety of acquired and research skills to complete, as well as a mixture of programming languages and applications software. The projects will be group-oriented and require students to work in teams. Coordinated team planning will be necessary. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

COMPUTER & INFORMATION SCIENCES–GENERAL STUDIES

The following CIS course is not intended for transfer and not applicable to any ECC degree nor is it counted in the GPA.

CIS 098 Computer Fundamentals (1) (1, 0)  
Prerequisite: None  
This course gets students started using computers. It includes an introduction to using a windows operating system, how to save and retrieve files, basic word processing, and an introduction to using the Internet. These basic skills are required prior to taking any other computer course. (1.6) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Available

COMPUTER OFFICE ASSISTANT  
(See Office Administration Technology)

COMPUTERIZED GRAPHIC DESIGN  
(See Graphic Design)

COOKING  
(See Culinary Management)

CREATIVE WRITING  
(See English Composition)
CRIMINAL JUSTICE

All CRJ courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

CRJ 101 Introduction to Criminal Justice (3) (3, 0)
Prerequisite: None
This course will approach the criminal justice system from an historical, developmental and philosophical perspective. Included will be the independent and interdependent relationships which exist between the components of the system as well as the connection with and impact upon society. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

CRJ 110 Introduction to Corrections (3) (3, 0)
Prerequisite: None
This course provides students with an overview of the corrections system. Course includes historical development, philosophy and a variety of correctional methods. Both pre- and post-institutional techniques, probation and parole will be covered. (1.1) Spring
Proficiency Credit Available
Pass/No Credit Not Available

CRJ 111 Stress Management in Law Enforcement (3) (3, 0)
Prerequisite: None
The purpose of this course is to develop an understanding of the stress faced by law enforcement officers and identify the sources of stress faced by the police officer, both internally and externally. Obtain an understanding of the physiology of stress, the zone of stability, and the causes of stress in policing. Methods of controlling and responding to stress will be reviewed, including physical and psychological techniques of stress management. (1.2) Fall
Proficiency Credit Not Available
Pass/No Credit Available

CRJ 120 Introduction to Probation & Parole (3) (3, 0)
Prerequisite: None
This course will cover the organization and operation of probation and parole systems, including history, law, ideologies, evaluation, problems, supervision, investigations, halfway houses, work release, and future trends. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

CRJ 160 Criminal Justice Report Writing (2) (2, 0)
Prerequisite: BUS 101 or ENG 101
This course will include the practical essentials for the preparation of notes, letters, bulletins, reports, statements and confessions as used throughout the criminal justice system. A review of grammar, usage, punctuation, structure and spelling will be covered. Clear, concise and accurate writing will be stressed. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

CRJ 180 Crime Prevention (3) (3, 0)
Prerequisite: None
This course provides a survey of crime prevention strategies as a specific function of police services requiring input from private, public and community interests. Examines the philosophy and organizational structure of crime prevention units. Explores the efficacy of neighborhood watch, target hardening and opportunity education programs and the potential problem areas. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Available

CRJ 198 The Police Service (3) (3, 0)
Prerequisite: CRJ 101 or consent of instructor
This course is an introduction to the aspects of policing as a functional component of the criminal justice system. The primary emphasis is to introduce students to the historical developments of the police process and the problems involved with the functions of policing in American society. Topics will include the rights and responsibilities of the uniformed officer; manpower distribution theories; police personnel issues of unionism, educational and training requirements, other personnel problems, ethics, and corruption, community relations, including problem oriented policing; the police subculture as a distinct value system; an analysis of the relationship between police agencies and their communities; and an introduction to administrative theory. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

CRJ 199 Community Based Policing (3) (3, 0)
Prerequisite: Grade of C or better in CRJ 101 and CRJ 198 or consent of instructor
This course will provide students with the overall intent of community involvement in the protection of the community, and also expose students to innovative approaches to resolving local problems in law enforcement. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

CRJ 200 Police Operations (3) (2, 2)
Prerequisite: Consent of instructor
This course studies the history and development of traffic and pedestrian law, and laws affecting attacks on police officers. It will examine the operations of patrol including accident investigation, and will include domestic violence, crimes in progress, felony stops, hostages, and incidents involving fire and hazardous materials, and courtroom testimony. It will also examine public misconduct, preventative patrol, and emergency vehicle operations. Special tactics, ethics, psychological dynamics involving interaction with a culturally diverse public, including juveniles will also be addressed. Students will participate in case studies, skills exercises, simulation, and report writing. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

CRJ 201 Crisis and Conflict Mediation (3) (3, 0)
Prerequisite: CRJ 101 or consent of instructor
This course presents the social and psychological factors found in crisis situations such as family violence, homicide, chemical and sexual abuse, suicide, physical illnesses, injuries, and various forms of interpersonal conflicts and violence. Students will develop strategies for effective assessment, intervention, and follow-up of these situations. The course also covers victimology, including the rights of victims, witnesses, and the responsibility of the helping professional. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

CRJ 202 Corrections Operations (2) (1.5, 1)
Prerequisite: Grade of C or better in CRJ 110 or consent of instructor
A course covering the daily functions of institutional correctional officers. It includes an overview of the activities pertaining to commitment, intake, classification, programs, services, safety, security, detainee privileges, searches, physical identification, transportation, emergency procedures, and release. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

CRJ 203 Corrections Counseling (2) (1.5, 1)
Prerequisite: CRJ 110 and CRJ 202 or consent of instructor
This course covers communicating individual responsibility for change, including information about programs for career growth, educational enhancement, and behavioral change. It covers multi-cultural diversity and communication skills necessary for the daily interaction of the correctional officer with the inmates and co-workers. The class stresses the development of positive daily interaction and effective crisis intervention strategies. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available
CRJ 204 Legal Aspects of Corrections (3)  (3.0)  
**Prerequisite:** CRJ 205 or CRJ 215 or consent of instructor

This course will provide information about the rights and privileges of inmates and the types of litigation that can be initiated by detainees. Legal liability of the correctional officer and institution, and the officer-detainee relationship within the administrative bounds will also be presented. In addition, the standards of the Bureau of Detention Standards and Services of the Illinois Department of Corrections will be discussed. (1.1) On Demand

Proficiency Credit Available
Pass/No Credit Not Available

CRJ 205 Criminal Law (3)  (3.0)  
**Prerequisite:** CRJ 101 or consent of instructor

This course will include a study of social and historical origins and of criminal law. The course will also cover the elements necessary to establish criminal violations and judicial sanctions, and the contemporary societal purposes and functions of the criminal law, using such examples and perspectives as common law, precedent, the Model Penal Code, and Illinois state statutes. (1.1) Fall

Proficiency Credit Not Available
Pass/No Credit Not Available

CRJ 215 Criminal Procedure (3)  (3.0)  
**Prerequisite:** CRJ 101 or consent of instructor

This course covers constitutional and statutory guidelines for arrest, detention, use of force, search and seizure, warrant requirements, line-ups and identification procedures, confessions, admissions, and interrogations. Emphasis is on the procedural considerations affecting law enforcement actions as restricted by constitutional amendments, statutes, and judicial precedent. It will include criminal procedures of Illinois, in addition to the general procedural guidelines for the administration of criminal law. (1.1) Spring

Proficiency Credit Available
Pass/No Credit Not Available

CRJ 216 Crime Investigation I (3)  (3.0)  
**Prerequisite:** Grade of C or better in CRJ 215 or consent of instructor

This course will cover the theoretical framework of the fundamental procedures of criminal investigation. It will include the study of the statutes concerning crimes against property and the public order. Techniques of investigating these crimes will also be presented. (1.2) Spring

Proficiency Credit Available
Pass/No Credit Not Available

CRJ 217 Crime Investigation II (3)  (3.0)  
**Prerequisite:** Grade of C or better in CRJ 216 or consent of instructor

This course is a continuation of Crime Investigation I. It is a study of the statutes concerning crimes against persons and crimes related to controlled substances. Techniques of recognizing and investigating these crimes will also be presented. (1.2) Fall

Proficiency Credit Available
Pass/No Credit Not Available

CRJ 218 Use of Force I (2)  (1.2)  
**Prerequisite:** Grade of C or better in CRJ 215 or consent of instructor

A study of theories and practices pertaining to the use of force for police officers. Specific topics include levels of resistance and control, reactionary options, and command presence. Practical instruction includes searching and handcuffing, empty hand tactics, pressure point control, weapon retention, straight baton, and edged weapon defense. The course will also include flexibility and cardiovascular exercises for warm-up and carry over purposes before starting the physical and personal defense skills phase of the course. (1.2) On Demand

Proficiency Credit Available
Pass/No Credit Not Available

CRJ 219 Use of Force II (2)  (1.2)  
**Prerequisite:** Grade of C or better in CRJ 218 or consent of instructor

A continuation of Use of Force I. Theories and practices pertaining to the use of force for police officers will be examined. Topics such as critical decision making, mental and physical preparedness, and legal and ethical considerations will be covered. Practical instruction includes marksmanship skills, care of weapons, and tactical responses. (1.2) On Demand

Proficiency Credit Available
Pass/No Credit Not Available

CRJ 220 Criminalistics (3)  (3.0)  
**Prerequisite:** Consent of instructor

This course covers all aspects of crime scene processing and evidence preservation and collection. The study of this will include processing the crime scene for trace evidence, examining and evaluating physical evidence, and laboratory procedures. (1.2) Fall

Proficiency Credit Not Available
Pass/No Credit Not Available

CRJ 225 Criminal Investigation (3)  (3.0)  
**Prerequisite:** None

This course will cover the fundamentals and procedures of investigation; applications of deductive and inductive reasoning to the investigative process; the collection, marking, and preservation of evidence; and the techniques and procedures of the follow-up investigation. (1.1) Spring

Proficiency Credit Available
Pass/No Credit Not Available

CRJ 230 Criminology (3)  (3.0)  
**Recommended:** SOC 100

Nature of crime and delinquency with historic and conventional theories of causation. Interrelationship of punishment to solution and correction. (1.1) Spring

Proficiency Credit Available
Pass/No Credit Not Available

CRJ 231 Juvenile Justice (3)  (3.0)  
**Prerequisite:** Grade of C or better in CRJ 101

An overview of the nature, extent, causes and control of juvenile delinquency. It will include the nature of the juvenile justice system and the processing of juveniles, including the historical development and the differences from the criminal system. The course will also include a study of the Illinois Juvenile Justice statutes. (1.2) Fall

Proficiency Credit Available
Pass/No Credit Not Available

CRJ 235 Issues in Criminal Justice (Variable Credit .5-3)(.5-3, 0-6)  
**Prerequisite:** None

Discussion and analysis of specific topics in criminal justice. Focus of the class will be on issues of police, courts, corrections or security in contemporary American society. Emphasis on promoting dialogue between students and practitioners from different areas of the criminal justice system. Repeatable to 12 credits. (1.2) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Available

CRJ 250 Juvenile Delinquency (3)  (3.0)  
**Prerequisite:** None

An overview of the nature, extent, causes and control of juvenile delinquency. The student will gain an understanding of the various theories of causation of delinquency, the characteristics of delinquents, and the ideas and practices unique to the juvenile justice system including differences based on established values and laws. (1.1) Fall

Proficiency Credit Available
Pass/No Credit Not Available
CRJ 270 Criminal Justice Organization and Management (3) (3, 0)
Prerequisite: Grade of C or better in CRJ 198 or CRJ 199 and CRJ 110 or consent of instructor
This course is designed to acquaint the student with basic management and leadership theories as they pertain to criminal justice administration. Included will be, principles of management and bureaucracy, organizational structure, and hierarchy; selection, training, supervision, and discipline of personnel; ethics; collective bargaining; planning; budgeting, auxiliary and staff functions. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

CRJ 290 Criminal Justice Seminar & Practicum (3) (1, 10)
Prerequisite: Consent of instructor
The acquisition of practical related experience through the application of classroom theories in actual criminal justice agencies under the supervision of faculty and agency staff. This off campus field-based course will provide broad exposure to the operating components of the criminal justice system. Students will be required to attend seminars, work 10 hours per week in the field, submit reports and keep a task log. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

CULINARY ARTS
(See Culinary Management)

CULINARY MANAGEMENT

All FOD and RMT courses numbered 100 and above, except FOD 108 and 121, may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees. FOD 108 and FOD 121 are not included in the GPA.

FOD 101 Introduction to Professional Food Service (3) (3, 0)
Prerequisite: None
Introduction to Professional Food Service describes the many different operations that make up “food service.” While restaurants are a major segment of the industry, institutional food services, such as those in business and industry, colleges/universities, health care and schools will provide many management jobs in the coming years. Hotel food service, while omitted from some newer hotels, is branching out into newer formats and is still regarded as an important guest service. Restaurant franchises are a growing business and offer advantages for both the franchiser and franchisee. Trends and new technology will shape the future of the industry and present management with new problems to solve and new opportunities for success. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

FOD 102 Food Production I (6) (1, 15)
Prerequisite: None
This “hands-on” class is designed to introduce basic skills in food service safety and sanitation, operation and maintenance of commercial food service equipment, preparation of stocks, sauces, soups, vegetables and entrees. The focus is on volume and nutritional preparation. Students will be introduced to convenience products used in commercial kitchens, determine recipe costs, menu pricing and food cost controls. Development of food presentation skills will be emphasized. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

FOD 103 Food Production II (6) (1, 15)
Prerequisite: FOD 102 or consent of instructor
Introductions to meat cutting and cost analysis of bulk versus portion cut meats. Also a basic approach to quantity cooking with emphasis on identification, grading and utilization of various meat cuts. Identification and preparation of salt and fresh water fish, crustaceans, mollusks and poultry. Practical experience in preparing quantity foods including ethnic and international dishes. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

FOD 105 Culinary Apprenticeship (4) (0, 20)
Prerequisite: FOD 103 or FOD 115 and FOD 215
This course is designed to give the student valuable hands-on experience by entering into a partnership with industry. The internship agreement will last for a minimum of 400 hours. Under the supervision of faculty member and designated employer, the student will participate in the day-to-day operations of the selected food service site. During the internship period, the student will be responsible for preparing four term papers relating to the specific operation. Upon completion of this course the student’s performance will be evaluated by the employer. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

FOD 106 Applied Food Service Sanitation (1) (1, 0)
Prerequisite: None
Aspects of basic food service sanitation and safety for the food service operation. Successful completion of the course allows the student to sit for the Illinois state food service sanitation certificate exam. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

FOD 115 Baking I (5) (3, 7)
Prerequisite: None
Theory and technique of baking and pastry make-up in quantity. Included will be basic concepts, units of measure, tools and materials, techniques and formulas. Discussions/demonstrations will cover basic baking to advanced techniques. Breads, sweet doughs, choux pastes, techniques and formulas. Discussions/demonstrations will cover basic baking to advanced techniques. Breads, sweet doughs, choux paste, pies, mousses, etc. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Available

FOD 116 Advanced Pastry I (4) (2, 8)
Prerequisite: FOD 115 or concurrent enrollment in FOD 115
Continuation of Baking II. Introduction to European and advanced pastries and tortes with an emphasis on new assembly and decorating techniques. Bavarians and Charlottes, butter creams, ganache, chocolate piping, and candy making. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Available

FOD 117 Decorative Pastry (4) (1, 9)
Prerequisite: FOD 116 or concurrent enrollment in FOD 116
This course deals exclusively with centerpiece and artistic displays. Sugar pulling, sugar casting, chocolate centerpieces, chocolate boxes, marzipan, rolled fondant, and wedding cakes will be taught through hands-on production. (1.2) Fall
Proficiency Credit Not Available
Pass/No Credit Available

FOD 118 Yeast Bread (4) (1, 9)
Prerequisite: None
This specialized course will provide students with the intensified production of yeast products. The experience will include reading and interpreting yeast formulas, ingredient selection and theory behind yeast dough production. Specialty breads, artisan, dough sculpture and regional products will be produced and discussed. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Available
FOD 206 Food Production III (6) (1, 15)
Prerequisite: FOD 103
Introduction to casual dining restaurant including buffet, tableside, and outdoor service with emphasis on the utilization of foods on buffet at value-oriented prices. Students will be responsible for developing menu and menu prices based on industry standards. Application of competitive purchasing as well as delegating and leadership skills are practiced in a rotating European Brigade System and fundamentals and guidelines in preparation of contemporary dishes. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

FOD 207 Hospitality Supervision (3) (3, 0)
Prerequisite: None
This course is designed to study the techniques involved in supervision and training employees in the hospitality industry. The use of work simplification as a method of increasing efficiency in management is discussed. Styles of management, stress management, as well as the minimum wage law is discussed. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

FOD 210 Garde Manger (4) (2, 4)
Prerequisite: FOD 206 or consent of instructor
This course covers all practical applications of cold food presentation, combining the necessary elements of artistry and cooking sensitivity. Innovative methods, traditional approaches and new culinary concepts, emphasizing important aspects of buffet preparation and addressing certain trends, as recommended by the American Culinary Federation as standards by which buffet platters are being evaluated all over the world. This course provides the fundamentals necessary to build and perfect garde manger skills that are essential for any culinary expert. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

FOD 215 Baking II (4) (1, 9)
Prerequisite: FOD 115
This course is a continuation of FOD 115 with an introduction to more elaborate baking and pastry with an emphasis on perfecting the bakers' techniques and production skills. Advanced work on tarts, petits fours sec, beginning cake baking and decoration will also be covered. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Available

FOD 216 Advanced Pastry II (4) (1, 9)
Prerequisite: FOD 116 and FOD 215
This course is a continuation of FOD 116 with more elaborate tortes and gateaux work. Ice cream and sorbets, plated dessert presentation, and chocolate and candy making will be addressed. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Available

FOD 218 Bakery Supervision (3) (3, 0)
Prerequisite: FOD 101
This lecture course will cover the foundation of a bakery/pastry kitchen. Topics will include employee scheduling, production planning, scratch baking vs. commercial purchasing. Advertising procedures and menu planning will also be covered. The course will also cover how to price and make a profit on bakery items in a retail establishment and in a hotel or catering or supermarket environment. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Available

RMT 105 Internship/Hospitality Management (5) (0, 25)
Prerequisite: Consent of instructor
This course is designed to give the student valuable hands-on experience by entering into a partnership with industry. Under the supervision of the faculty member and designated employer, the student will participate in the day-to-day operations of the selected food service site. Students are required to complete a total of 400 hours of work at the internship site. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

RMT 201 Hospitality Industry Management (5) (2, 9)
Prerequisite: FOD 207
The student in the dining room service course will participate in the operation of the student run restaurant. The "hands-on" experience will provide skill training in the management of customer service, tableside service, foodservice styles, dining room organization and personnel, marketing and merchandising of the menu, cost control, sales, and menu explosions. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

RMT 211 Food, Beverage, & Labor Control (3) (3, 0)
Prerequisite: RMT 214 and RMT 216 or consent of instructor
This course focuses on the basic costing concepts for food, beverage and labor control system, analysis methods and correction. The student will be provided with the tools necessary to maintain sales and cost histories, develop systems for monitoring current activities and techniques required to anticipate future activities. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

RMT 214 Quantity Food Purchasing (3) (3, 0)
Prerequisite: None
Emphasis will be placed on the selection and specification requirements for purchasing the major types of foods, beverages and non-food items. Principles of product identification, proper receiving methods, storing, issuing, inventory items and inventory control will be covered. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

RMT 216 Menus and Merchandising (3) (3, 0)
Prerequisite: None
This course will cover the basic aspect of menu planning, design and pricing, essential knowledge of proper advertising and merchandising in a modern food service facility. Menu analysis is an important part of successful food service management and will be emphasized during this course. This course will provide the student with an opportunity to create their own menu. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

DATA COMMUNICATIONS & NETWORKING
(See Computer & Information Sciences)

DATA ENTRY OFFICE ASSISTANT
(See Office Administration Technology)
DENTAL ASSISTING

All DEA courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

Special Admissions Requirements apply to Dental Assisting courses (see Dental Assisting curriculum).

DEA 101 Dental Assisting I (3) (2, 2)
Prerequisite: None
Introductory course to dental assisting. Tooth anatomy, both primary and permanent teeth, are included as well as a survey of head and neck anatomy. Bones, muscles, glands, blood vessels and nerves are studied as they relate to the functional dentition and the jaw joint. Fetal development of the face is included. A limited microbiology section is also included. The lab includes crown carving, myofunctional theories and cephalometric tracings. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

DEA 102 Dental Science I (2.5) (2, 1)
Prerequisite: None
A survey of head and neck anatomy. Bones, muscles, glands, blood vessels and nerves are studied as they relate to the functional dentition and the jaw joint. Fetal development of the face is included. The lab includes myofunctional theories and cephalometric tracings. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

DEA 103 Dental Materials I (3) (2, 2)
Prerequisite: DEA 101 or concurrent enrollment in DEA 101
This course deals with the chemical, physical and mechanical concepts of gypsum, hydrocolloids, dental filling materials and periodontal packs. Emphasis will be placed on developing manipulative skills necessary to carry out laboratory and chairside procedures. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

DEA 105 Preventive Dentistry (2) (2, 0)
Prerequisite: None
Presents concepts of community dentistry including diet and nutrition, fluoridation, dental disease statistics, and dental health education. The student will practice patient motivation techniques. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

DEA 106 Dental Aseptic Techniques (3) (2, 2)
Prerequisite: DEA 101 or consent of instructor or concurrent enrollment in DEA 101
Recommended: Concurrent enrollment in DEA 108 and DRP reading assessment score of 48 or higher
This course is designed for the dental assisting major and will cover methods used for disinfection, sterilization, prevention of crosscontamination and techniques used to prevent personnel infection. Heavy emphasis will be placed on the use of equipment and chemicals. Methods to sterilize individual groups of instruments will be studied. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

DEA 107 Dental Radiography (3) (2, 2)
Prerequisite: DEA 101 or consent of instructor
Techniques involved in exposing, processing and mounting dental x-rays. Two techniques are taught: the paralleling and the bisecting angle. Stress is placed upon radiation safety for the operator and patient. Anatomy of the bony structures radiographed as well as history and physics of radiography will be covered. All work will be completed on manikins. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

DEA 108 Chairside Dental Assisting I (3) (2, 2)
Prerequisite: DEA 103 and DEA 106 or consent of instructor or concurrent enrollment in DEA 101, DEA 103 and DEA 106
Recommended: DRP reading assessment score of 48 or higher
Practical experience is given in chairside procedures of general dentistry. Procedures for tooth restoration and cleaning are covered. Skills taught include equipment use and care, aseptic techniques, charting, saliva control, instrument transfer, sharpening, and identification. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

DEA 110 Preclinical: The Specialties (2) (1.5, 1)
Prerequisite: DEA 111 & DEA 118 or concurrent enrollment in DEA 111 and DEA 118
Recommended: DEA 116, but not required
Orients and identifies the operative and diagnostic procedures in the specialties of dentistry. Oral and maxillofacial surgery, endodontics, periodontics, orthodontics, and pediatric dentistry will be emphasized. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

DEA 111 Dental Assisting II (3) (3, 0)
Prerequisite: DEA 101 or consent of instructor
Presents concepts of first aid, community dentistry, dental pathology, and pharmacology including: Diet and nutrition, fluoridation, and patient education. First aid as it applies to the dental office is also stressed. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

DEA 113 Special Projects in Dental Assisting (1) (0, 2)
Prerequisite: Consent of instructor
Remedial or advanced projects in either chairside assisting or dental radiography will be undertaken. Advanced projects in dental radiography include occlusal and oblique angle projections, pedodontic and extraoral techniques. Advanced projects in chairside assistance including six-handed, sit-down dentistry and chairside assisting for the dental specialties. Clinical evaluations and a project report will be required. Advanced work in dental biology can also be undertaken. Repeatable to three credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

DEA 114 Dental Science II (2) (2, 0)
Prerequisite: DEA 101
Recommended: DEA 102
This course places emphasis on dental pathology and pharmacology. Developmental, infections and neoplastic diseases are included. Medical drugs as they relate to dental treatment are discussed as well as the drugs used in the treatment of dental diseases. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

DEA 115 Dental Science III (1.5)
Prerequisite: None
Course designed to teach first aid for medical emergencies encountered in the dental office. Students will receive CPR certification from the American Heart Association. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available
COURSE DESCRIPTIONS

DEA 116 Preclinical: General Procedures (2.5)  (1, 3)
Prerequisite: DEA 100, DEA 101, and DEA 103 or consent of instructor
Recommended: This course should be taken the semester before DEA 123 and DEA 124
Orients and identifies the chairside procedures in general dentistry. Procedures for tooth restoration and cleaning are covered. Skills taught include equipment use and care, saliva control, instrument transfer, sharpening and identification. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

DEA 117 Dental Radiography II (1)   (0.5, 1)
Prerequisite: DEA 107. Must be at least age 18 by first day of class to enroll. If pregnant, do not take this course.
The student will be expected to demonstrate the skills learned in Dental Radiography I on humans. Students will take adult, primary, mixed and edentulous dentition radiographs. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

DEA 118 Dental Materials II (2.5)   (1.5, 2)
Prerequisite: DEA 103 or consent of instructor
This course is a continuation of Dental Materials I. Concepts applied to prosthetic dental impression materials are covered as well as acrylic materials and metals. Emphasis will be placed on manipulative techniques and their use in general dentistry. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

DEA 119 Dental Records & Communication (2.5)   (2, 1)
Prerequisite: None
The policies and procedures for all dental office clinical and financial records are discussed. Compilation and recording of data, correspondence with responsible third parties, and filing and storage of records are included. Appointments, bookkeeping procedures, inventory control, telephone techniques, banking procedures, and financial arrangements are covered. Also included are: Interviewing skills, health and grooming, ethics, and history of dentistry. A major part of the course includes effective patient communication. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

DEA 120 Chairside Dental Assisting II (3)   (2, 2)
Prerequisite: DEA 108 or consent of instructor
Indepth classroom and laboratory experiences in chairside dental assisting procedures for the specialties of dentistry. Endodontics, Oral and Maxillofacial Surgery, Orthodontics, Pediatric Dentistry, and Periodontics will be emphasized. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

DEA 123 Clinical Practice I (3)   (1, 9)
Prerequisite: DEA 108 and DEA 120 or consent of instructor
Application of theories and skills taught in the classroom to clinical surroundings of two general practice offices. (1.2) Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

DEA 124 Clinical Practice II (3)   (1, 8)
Prerequisite: DEA 108 and DEA 120 or consent of instructor
Application of theories and skills taught in the classroom and lab to the clinical surroundings of two or three different specialties. Student affiliations can include: oral and maxillofacial surgery, orthodontics, periodontics and pediatric dentistry. (1.2) Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

DENTAL ASSISTING-GENERAL STUDIES

The following DEA course is not applicable to any ECC degree or certificate.

DEA 200 Computers in Dental Practice (.5)   (0, 1)
Prerequisite: DEA 119 or concurrent enrollment in DEA 119 or consent of instructor
This course is designed for the advanced dental assisting student or current employees in the field. The student will use personal computers to open an account, make charge slips, post daily accounts, prepare schedules, complete insurance forms, set recall reminders, bill and age accounts as well as many other office procedures. This course is repeatable to one and a half credits. (1.6) Summer, On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

DESIGN
(See Art, Computer Aided Design & Drafting, Graphic Design)

DESKTOP PUBLISHING
(See Computer & Information Sciences and Office Administration Technology)

DEVELOPMENTAL STUDIES
(See page 76)

DICTATION
(See Office Administration Technology)

DIGITAL TECHNOLOGY
(See Electronics)

DRAFTING & DESIGN
(See Computer Aided Design & Drafting)

DRAMA
(See Theatre)

DRAWING
(See Art)
ECONOMICS

BEC 101, 102, and 103 fulfill the social sciences requirement in the Associate in Arts, Associate in Science, Associate in Fine Arts and Associate in Engineering Science Degrees.

All BEC and ECN courses numbered 100 and above may be used to fulfill the social science requirement in the Associate in Liberal Studies, and Associate of Applied Science Degrees.

All BEC and ECN courses numbered 100 and above may also be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

ADVANCED ECONOMICS PLACEMENT

Based on the score received on the Advanced Placement (AP) Examination, credit is available for BEC 102 (AP, 4) and BEC 103 (AP, 4).

BEC 101 Basic Economics (3) (3, 0)

Prerequisite: None

Recommended: For students not planning further study in BEC 102 and 103

Introductory course that presents a brief exposition of economic analysis, issues, and institutions. Includes an examination of the overall performance of our economy and its individual units. (1.1) Fall, Spring

Fulfills the ECC/IAI General Education/Social Sciences requirement.

IAI Course Number: S3 900

Proficiency Credit Not Available

Pass/No Credit Not Available

BEC 102 Principles of Macroeconomics (3) (3, 0)

Prerequisite: None

A basic course introducing the nature of macroeconomic activity, including the organization of the American economy. Emphasis is placed upon the fundamental principles of national income determination, employment of resources, monetary and banking processes, prices and allocation of resources. (1.1) Fall, Spring, Summer

Fulfills the ECC/IAI General Education/Social Sciences requirement.

IAI Course Number: S3 901

Proficiency Credit Available

Pass/No Credit Not Available

BEC 103 Principles of Microeconomics (3) (3, 0)

Prerequisite: None

A basic course introducing the nature of microeconomics activity that analyzes the functioning of the economic system, including management of economic resources, price and cost, economics of the firm, and domestic economic problems. (1.1) Fall, Spring, Summer

Fulfills the ECC/IAI General Education/Social Sciences requirement.

IAI Course Number: S3 902

Proficiency Credit Available

Pass/No Credit Not Available

ECN 111 Contemporary Economic Issues (3) (3, 0)

Prerequisite: BEC 103 or consent of instructor

A consideration of the basic forces that determine the functioning of an economic system. A basic survey of the nature and scope of economics and the place of economics among the social sciences to examine current social and political issues. (1.1) On Demand

Proficiency Credit Not Available

Pass/No Credit Not Available

EDUCATION

All EDN courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

Students who want to become certified in the state of Illinois as teachers are urged to develop an Educational Plan with an ECC counselor regarding the selection of ALL courses.

EDN 100 Introduction to Education (3) (3, 0)

Prerequisite: None

This course will introduce the topics of education both as a professional pursuit, and as an institution. Students will study historical, social, and philosophical foundations of education, as well as current issues confronting teachers, legislators, administrators, students, and communities. (1.1) Fall, Spring, Summer

Proficiency Credit Not Available

Pass/No Credit Not Available

EDN 105 Art in the Classroom (3) (3, 0)

Prerequisite: PSY 100

Designed to increase understanding of the child and his/her creative work at various stages of development and to explore a wide variety of materials. Assistance in organizing an art program in the classroom. (1.1) Spring

Proficiency Credit Not Available

Pass/No Credit Not Available

EDN 128 Music for the Elementary Teacher (3) (3, 0)

Prerequisite: PSY 100

Applied techniques and current practices in developing a music program; material for teaching vocal music; directed listening, experimentation with simple melodic rhythmic instruments. Survey of instructional materials. Term paper or project. (1.1) Fall

Proficiency Credit Not Available

Pass/No Credit Not Available

EDN 201 Introduction to Cross-Cultural Education (3) (3, 0)

Prerequisite: None

Designed to increase the student’s awareness of other cultures, other perspectives, and his/her own involvement in the global community. The course will also concentrate on the study of effective teaching strategies and resources for multi-cultural teaching. (1.1) On Demand

Proficiency Credit Not Available

Pass/No Credit Not Available

NOTE: This course is offered concurrently as INS 201. The student must decide whether to earn credits in Education (EDN) or International Studies (INS) prior to enrolling.

EDN 204 The Exceptional Child (3) (3, 0)

Prerequisite: PSY 100 or consent of instructor

The study of children who do not follow normal or average patterns of development will be stressed. Each area will be compared with normal growth and development. Emphasis is on the principles, techniques and services which assist each child to develop his/her fullest potential. Methods of identification will also be discussed. (1.1) Fall

Proficiency Credit Available

Pass/No Credit Not Available

NOTE: This course is offered concurrently as ECE 204. The student must decide whether to earn credits in Education (EDN) or Early Childhood Education (ECE) prior to enrolling.
COURSE DESCRIPTIONS

EDN 205 Introduction to Group Processes (3) (3.0)
Prerequisite: None
This course is designed to meet the needs of the student who will help others on a group basis. The major focus is on increasing communication at all age levels, interpersonal knowledge and leadership skills in an atmosphere that allows students to study themselves and their relationships with other people. The course is taught using the laboratory approach which gives students the opportunity to experience the small group processes and theory being studied. Students are encouraged to examine their own value base, self-concept and interpersonal style, and the implication that these have in working with adults as well as children. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

EDN 211 Pre-Student Teaching Clinical Experience (2) (1.2)
Prerequisite: Grade of C or better in PSY 100 & either PSY 212 or PSY 213 and PSY 211 or concurrent enrollment in PSY 211 or consent of instructor
Recommended: A minimum GPA of 2.5
Documented clinical experience involving observation of and interaction with children and practitioners at work, according to specified guidelines, within the appropriate subject matter and age category. The experience, comprising of a minimum of 30-50 hours, is planned, guided, and evaluated by both a college supervisor and a teacher on-site. The experience can occur in a variety of educational settings. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

ELECTRONICS

All ELS and EMF courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

ELS 100 Introduction to Electronics (5) (2, 6)
Prerequisite: MTH 096 or one year high school algebra
Introductory course in electrical and electronic principles, formulas, components, circuits, symbols, schematics, test equipment and laboratory procedures. Course work will consist primarily of lab experiments and lectures. Evaluation will be conducted by means of in-class and take home tests, formal lab reports, an electronic research project, a practical exam, and a comprehensive final exam. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Available

ELS 101 DC Fundamentals (5) (3, 5)
Prerequisite: MTH 107 or concurrent enrollment in MTH 107
Solid basis of direct current fundamentals and direct current analysis required to further pursue electronic concepts and circuits. Course work builds a strong foundation in the use of circuit analysis in theorems such as Voltage Divider, Current Divider, Thevenin, Norton, Millman, Superposition, and Mesh and Node equations. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

ELS 102 Semi-Conductors & Electronic Circuits (4) (2, 6)
Prerequisite: ELS 103 and MTH 109 or concurrent enrollment in MTH 109
Introductory course in semi-conductor electronic devices. Course work involves theory of operation, characteristics, circuit analysis, and applications of semi-conductor diodes, other terminal devices, bipolar junction transistors, and field effect transistors. Concentration on mathematical analysis and laboratory experiments. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

ELS 103 AC Circuit Analysis (2) (1, 3)
Prerequisite: ELS 101 and MTH 107 or concurrent enrollment in MTH 107
Analysis of AC circuit components using principles, theorems, and equations developed in DC fundamentals. Topics include capacitance, inductance, resonance and filters. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

ELS 105 Test Equipment & Fabrication (2) (1, 2)
Prerequisite: ELS 101
Care and use of electronic test equipment including analog and digital multi-meters, power supplies, signal generators, frequency counters, and oscilloscopes. Lab work also includes soldering methods and techniques, printed circuit board repair, and basic principles of wire wrapping. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

ELS 140 Introduction to Programmable Controllers (4) (2, 4)
Prerequisite: None
An introduction to programmable controllers which use less than 64 input and output points. The course will cover ladder logic programming, hardware, P.C. functions, and uses of P.C. future markets and applications will also be explored. Content and objectives vary depending on industry standards and available text. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

ELS 201 Solid State Devices and Advanced Circuits (4) (2, 6)
Prerequisite: ELS 102 and ELS 217
Study of solid state devices and new types of electronic circuits. Course includes differential amplifiers, operational amplifiers, active filters, IC regulators, oscillators, timers, phase locked loops, mixer, modulator, and demodulator circuits. Course includes basic IC analysis and an introduction to the fundamentals of telecommunications. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

ELS 205 Digital Electronics (5) (3, 5)
Prerequisite: ELS 102 or concurrent enrollment in ELS 102
Comprehensive course covering TTL and CMOS logic circuits, combinational, and sequential logic. 7400 series components are used to construct adders, ALU’s, encoders/decoders, multiplexers/ demultiplexers, counters, registers, Analog to Digital and Digital to Analog converters. Also included is a study of RAM’s, ROM’s, PROM’s, and basic digital computer structure. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

ELS 206 Basic Communications Systems I (4) (2, 4)
Prerequisite: Grade of C or better in ELS 201, ELS 205, MTH 107 and MTH 109, or consent of instructor
Recommended: Completion of ELS 101, ELS 102, ELS 103 and ELS 105
An introductory course in the fundamentals of analog communications. Course material will include the study of the terminology and equipment needed to transmit and receive Amplitude Modulated (AM) Radio Frequency (RF) communication signals. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

ELS 207 Basic Communications Systems II (4) (2, 4)
Prerequisite: Grade of C or better in ELS 206, or consent of instructor; must enroll in ELS 217
Recommended: Completion of ELS 101, ELS 102, ELS 103 and ELS 105
A continuation in the fundamentals of analog communications. Course material will include the study of the terminology and equipment needed to transmit and receive Frequency Modulated (FM) and Phase Modulated (PM) Radio Frequency (RF) communication signals. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available
 COURSE DESCRIPTIONS

ELS 208 Digital and Data Communications (4)  (2, 4)
Prerequisite: Grade of C or better in ELS 207, or consent of instructor
Recommended: Completion of ELS 101, ELS 102, ELS 103 and ELS 105
An introductory course in the fundamentals of digital and data communications. Course material will include the study of the terminology, digitizing techniques for analog signals, advantages of digital over analog signal transmission, encoded data, serial and parallel data transmission. Modems, LANs, WANs, and the test equipment needed to transmit and receive Radio Frequency (RF) communication signals. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

ELS 209 Radio Transmission Systems (3)  (1, 4)
Prerequisite: Grade of C or better in ELS 208 or consent of instructor
Recommended: Completion of ELS 101, ELS 102, ELS 103 and ELS 105
An introductory course in the fundamentals of radio transmission methods and systems. Course material will include the study of the terminology, transmission lines, radio-wave propagation, antennas, microwave devices, terrestrial microwave systems, satellite communications, cellular radio and personal communications systems and the test equipment needed to service these systems. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

ELS 210 Fiber Optics (4)  (2, 4)
Prerequisite: Grade of C or better in ELS 209, or consent of instructor
Recommended: Completion of ELS 101, ELS 102, ELS 103 and ELS 105
An introductory course into the basic principles of fiber optics. Course material will include the study of the terminology, components that make up a fiber optic link, testing and proper handling of fiber optic cable, testing of links and components, how fiber is constructed and deployed, and basic light theory as it applies to fiber optics. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

ELS 211 Electronic Industry Preparation (2)  (1, 2)
Prerequisite: ELS 100 or ELS 101 or ELS 102 or ELS 140 or ELS 217 or concurrent enrollment in ELS 100 or ELS 101 or ELS 102 or ELS 140 or ELS 217 or consent of instructor
General theory course covering communications, biomedical, computers, machine tool, robotics, automatic test equipment, precision measurement equipment, automotive, and general electronic equipment and systems. Also included are employment preparation procedures for electronic industry positions such as resume writing, employment interviewing, and interpersonal relationships in the workplace. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

ELS 214 Electronic Control Devices & Systems (4)  (2, 4)
Prerequisite: ELS 201 and ELS 205 or consent of instructor
Introductory course in electronic control devices and systems. Course work concentrates on theory of operation, characteristics, and applications. Subject matter includes electro-mechanical devices, motors and generators, basic fluid power systems, power sources and distribution systems, transducers, solid state devices, optoelectronics, servo control systems, programmable controllers, an overview of MS/DOS, and introduction to IBM PC Bus. Course concludes with a project using OPTO 22 and A to D/D to A interface cards. Students will have opportunities to utilize control programs written in Assembler, Basic, Pascal and C. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

ELS 215 Microprocessors & Microcomputers (5)  (3, 5)
Prerequisite: ELS 205
Practical introduction using the 68HC11 evaluation board and an IBM PC based cross assembler. Course includes microcomputer architecture, programming microprocessors, bus and hardware signals, parallel and serial input/output, interrupts and alternatives, counters and timers, communication systems, and storage/display systems. Course concludes with logic analyzer troubleshooting of a microcomputer based process control system. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

ELS 217 Calculus for Electronics I (3)  (3, 0)
Prerequisite: MTH 109
Higher mathematics procedures and techniques with particular emphasis on electronic applications. Helps provide a better understanding of rate of change in electrical circuits by teaching methods of solution which cannot be accomplished with other mathematics such as algebra or trigonometry. Course will also utilize various computer applications to solve problems. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

ELS 219 Calculus for Electronics II (3)  (3, 0)
Prerequisite: ELS 217
Continuation of ELS 217. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

ELS 234 Special Topics in Electronics (1)  (.5, 1)
Prerequisite: None
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on specific topic; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of electronics. Course is repeatable to four credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

ELS 235 Special Topics in Electronics (2)  (1, 2)
Prerequisite: None
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on specific topic; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of electronics. Course is repeatable to eight credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

ELS 236 Special Topics in Electronics (3)  (1, 4)
Prerequisite: None
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on specific topic; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of electronics. Course is repeatable to 12 credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

ELS 241 Microprocessor Applications (2)  (0, 4)
Prerequisite: ELS 215 or consent of instructor
A continuation of study in microprocessors utilizing the INTEL 8086 family of 16 bit processors. Laboratory work concentrating on developing MS-DOS device drivers for analog interfacing and process control applications. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available
COURSE DESCRIPTIONS

ELS 242 Linear Applications (2) 
Prerequisite: ELS 201 or consent of instructor
A continuation of study in linear electronics. Laboratory course covering
waveform generation, bridge and instrumentation amplifiers, modula-
tion and demodulation, timers/counters, digital-to-analog and analog-to-
digital converters, linear regulators, and switching regulators. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

EMF 111 Electronics Math I (2) 
Prerequisite: C or better in MTH 098, or equivalent, or consent of in-
structor
Introduces topics in algebra, trigonometry, and problem solving tech-
niques as it applies to the Electronic Manufacturing Program within an
industrial setting. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

EMF 134 Digital Electronics I (2) 
Prerequisite: Consent of instructor
Covers TTL and CMOS combinatorial logic circuits. Boolean Algebra
and Karnaugh Mapping are tools used to analyze all logic systems.
Common logic circuits such as adders, decoders, multiplexors, and parity
generators are built and tested. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

EMF 135 Digital Electronics II (2) 
Prerequisite: C or better in EMF 134, or equivalent, or consent of in-
structor
Introduces basic flip-flop circuits. Counters and shift registers are ana-
yzed showing applications in practical systems. Serial and parallel
movement of data is covered along with troubleshooting methods. (1.2)
Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

EMF 136 DC Circuit Analysis I (2.5) 
Prerequisite: C or better in EMF 134, or equivalent, or consent of in-
structor
Serves as the foundation course for all analog circuit analysis. The
fundamental quantities of electric circuits are defined and basic units of
measurement are emphasized in the laboratory. Ohm’s Law, Kirchoff’s
Laws and the basic series and parallel circuit configurations are ana-
yzed. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

EMF 137 DC Circuit Analysis II (2.5) 
Prerequisite: C or better in EMF 136, or equivalent, or consent of in-
structor
Continues the study of DC circuit analysis. The fundamental theorems
of circuit analysis are covered along with the development of node and
loop equations. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

EMF 170 Electronics Manufacturing Intern I (2) 
Prerequisite: C or better in EMF 135, or equivalent, or consent of in-
structor
Applies appropriate skills to the electronics manufacturing and elec-
tronics technology field. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

EMF 171 Electronics Manufacturing Intern II (1) 
Prerequisite: C or better in EMF 170, or equivalent, or consent of in-
structor
Participates in appropriate technician level competencies and problem-
solving skills related to the electronics manufacturing field. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

EMF 172 Electronics Manufacturing Intern III (2) 
Prerequisite: C or better in EMF 171, or equivalent, or consent of in-
structor
Applies appropriate technician level applications and skill based semi-
nars which enhance technician skills and competencies used in the
electronics manufacturing environment. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available
EMF 230 AC Circuit Analysis I (2)  
**Prerequisite:** C or better in EMF 137, or equivalent, or consent of instructor

Introduces the analysis of AC circuits using principles, theorems and equations developed in DC Circuit Analysis (EMF 136/137). The fundamental circuit components of resistance, inductance and capacitance are studied with respect to changes in frequency. Builds on a strong foundation of complex numbers and trigonometry applied to the analysis of AC circuits. Time constants of simple circuits are analyzed. (1.2) Fall, Spring, On Demand

COURSES AVAILABLE
Proficiency Credit Available
Pass/No Credit Available

EMF 231 AC Circuit Analysis II (2)  
**Prerequisite:** C or better in EMF 230, or equivalent, or consent of instructor

Continues the study of AC circuits by developing the concepts of resonance, power, and filter response. Frequency response characteristics of circuits will be stressed throughout. (1.2) Fall, Spring, On Demand

COURSES AVAILABLE
Proficiency Credit Available
Pass/No Credit Available

EMF 232 Linear Devices I (2)  
**Prerequisite:** C or better in EMF 137, or equivalent, or consent of instructor

Introduces semiconductor electronic devices. The DC theory of operation is emphasized throughout. The characteristic curves and DC biasing are developed. Simple troubleshooting techniques are defined. (1.2) Fall, Spring, On Demand

COURSES AVAILABLE
Proficiency Credit Available
Pass/No Credit Available

EMF 233 Linear Devices II (2)  
**Prerequisite:** C or better in EMF 232, or equivalent, or consent of instructor

Introduces the AC equivalent of semiconductor diode and amplifier circuits. Power amplifiers are analyzed and the FET is introduced. Several common amplifier configurations are analyzed. (1.2) Fall, Spring, On Demand

COURSES AVAILABLE
Proficiency Credit Available
Pass/No Credit Available

EMF 234 Microprocessor I (2)  
**Prerequisite:** C or better in EMF 135, or equivalent, or consent of instructor

Introduces microprocessor using the 8 bit machine. Basic computer arithmetic is covered along with memory and bus structure. (1.2) Fall, Spring, On Demand

COURSES AVAILABLE
Proficiency Credit Available
Pass/No Credit Available

EMF 235 Microprocessor II (2)  
**Prerequisite:** C or better in EMF 234, or equivalent, or consent of instructor

Continues the study of the 8 bit microprocessor. Addressing structures are covered along with simple program writing. Hardware configurations and its relation to input/output, interrupts and DMA are introduced. (1.2) Fall, Spring, On Demand

COURSES AVAILABLE
Proficiency Credit Available
Pass/No Credit Available

EMF 236 Microprocessor III (2)  
**Prerequisite:** C or better in EMF 235, or equivalent, or consent of instructor

Continues the study of microprocessors into the 16 bit machine. A 16 bit instruction set is introduced along with an assembler and debugger. (1.2) Fall, Spring, On Demand

COURSES AVAILABLE
Proficiency Credit Available
Pass/No Credit Available

EMF 237 Microprocessor IV (2)  
**Prerequisite:** C or better in EMF 236, or equivalent, or consent of instructor

Introduces C programming. The basic ideas of the C Language are used to show operating system interfaces and control applications. The basics of compilers are given along with the use of disks and files. (1.2) Fall, Spring, On Demand

COURSES AVAILABLE
Proficiency Credit Available
Pass/No Credit Available

EMF 238 Electronic Communications Systems I (2)  
**Prerequisite:** C or better in EMF 231 and EMF 233, or equivalent, or consent of instructor

Introduces the concepts of communications electronic systems. Modulation and detection techniques associated with amplitude modulation and single sideband are covered. Propagation, antenna characteristics and transmission line behavior are included. (1.2) Fall, Spring, On Demand

COURSES AVAILABLE
Proficiency Credit Available
Pass/No Credit Available

EMF 239 Electronic Communications Systems II (2)  
**Prerequisite:** C or better in EMF 238, or equivalent, or consent of instructor

Continues the study of communications electronic systems by analyzing frequency modulation and detection techniques. Digital modulation techniques such as FSK, PSK and QAM are also covered. Microwave, satellite and fiber optic systems are also introduced. (1.2) Fall, Spring, On Demand

COURSES AVAILABLE
Proficiency Credit Available
Pass/No Credit Available

EMF 250 Linear Devices IV (2)  
**Prerequisite:** C or better in EMF 250, or equivalent, or consent of instructor

Continues the study of communications electronic systems by analyzing frequency modulation and detection techniques. Digital modulation techniques such as FSK, PSK and QAM are also covered. Microwave, satellite and fiber optic systems are also introduced. (1.2) Fall, Spring, On Demand

COURSES AVAILABLE
Proficiency Credit Available
Pass/No Credit Available

EMF 251 Linear Devices IV (2)  
**Prerequisite:** C or better in EMF 250, or equivalent, or consent of instructor

Studies more advanced solid state device circuits. Frequency response, operational amplifier configurations and tuned amplifiers are covered. Oscillator fundamentals and troubleshooting techniques to the component level are examples of the practical emphasis within the course. (1.2) Fall, Spring, On Demand

COURSES AVAILABLE
Proficiency Credit Available
Pass/No Credit Available
EMERGENCY MEDICAL TECHNOLOGY-PARAMEDIC

All EMT courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

Special Admissions Requirements apply to EMT courses (see Emergency Medical Technology - Paramedic curriculum).

EMT 121 Paramedic I (6) (5.3)
Prerequisite: Current certification as an EMT-B or I and acceptance into the EMT-P program
This course encompasses the training of paramedics in the areas of their role, medical/legal considerations, ethics, EMS Systems, personal wellness, injury prevention, general patient assessment, communications, documentation, assessment based management, and life span development. The paramedic student will also learn recognition and treatment of respiratory insufficiency. This course will consist of classroom theory and concurrent laboratory and clinical experience in simulated situations, hospital and pre-hospital settings. (1.2) Fall
Proficiency Credit Not Available
Pass/No Credit Not Available

EMT 122 Paramedic II (6) (5.3)
Prerequisite: Grade of C or better in EMT 121 or concurrent enrollment in EMT 121; EMT 121 should be taken prior to EMT 122 in the same semester
This course encompasses the training of paramedics in the areas of pathophysiology, pharmacology, venous access, medication administration, and specific medical emergencies including those involving pulmonary, cardiology, neurology, endocrinology, toxicology, and hematology diseases. This course will consist of classroom theory and concurrent laboratory and clinical experience in simulated situations, the hospital and out in the field. (1.2) Fall
Proficiency Credit Not Available
Pass/No Credit Not Available

EMT 123 Paramedic III (6) (5.3)
Prerequisite: Grade of C or better in EMT 122
This course encompasses the training of paramedics in the handling of emergencies relative to infectious and communicable diseases, allergies and anaphylaxis, obstetrics, neonatology, pediatrics, geriatrics, special challenges patients and home health care patients. This course consists of classroom theory and concurrent laboratory/clinical experience in simulated situations, the hospital, and out in the field. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

EMT 124 Paramedic IV (6) (5.3)
Prerequisite: Grade of C or better in EMT 123 or concurrent enrollment in EMT 123; EMT 123 should be taken prior to EMT 124 in the same semester
This course encompasses the training of paramedics in the area of trauma emergencies. It includes the kinetics of trauma, head, neck and spinal injury, body cavity trauma, musculoskeletal injuries, soft tissue trauma, burns, shock, and trauma resuscitation. This course consists of classroom theory and concurrent laboratory/clinical experience in simulated situations, the hospital and out in the field. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

EMT 130 Paramedic Seminar I (1.5) (1.5, 0)
Prerequisite: Grade of C or better in EMT 123 and EMT 124 or concurrent enrollment in EMT 123 or EMT 124
This course encompasses the Basic Trauma Life Support Course. Students will participate in classroom theory and simulated hands-on trauma life support training. The students will receive certification in Basic Trauma Life Support upon successful completion of the course. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

EMT 131 Paramedic Seminar II (1.5) (1.5, 0)
Prerequisite: Grade of C or better in EMT 130
This course will cover the Advance Cardiac Life Support course. Students will participate in classroom theory and simulated hands-on Advance Cardiac Life Support assessment and skills. Upon successful completion of the course students will receive certification in ACLS. (1.2) Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

EMT 132 Paramedic Seminar III (1.5) (1.5, 0)
Prerequisite: Grade of C or better in EMT 131
This course will cover the Pediatric Education for Prehospital Professionals. Students will participate in classroom theory and simulated hands-on Pediatric patient care. Upon successful completion of the course students will receive PEPP certification. (1.2) Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

EMT 133 Paramedic Seminar V (4.5) (3.5, 3)
Prerequisite: Grade of C or better in EMT 132
This course will familiarize the paramedic student with ambulance operations, medical incident command, rescue awareness and operations, hazardous materials incidents, crime scene awareness and weapons of mass destruction preparedness. This course will consist of classroom theory and concurrent laboratory and clinical experience in simulated situations, hospital, and prehospital settings. (1.2) Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

ENGINE MECHANICAL REPAIR SPECIALIST
(See Automotive)

ENGINE PERFORMANCE SPECIALIST
(See Automotive)

ENGINEERING (PRE- PROFESSIONAL)

All EGR courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

EGR 101 General Engineering Drawing (4) (2, 4)
Prerequisite: MTH 098 or concurrent enrollment in MTH 098
This course will consider the theory of shape description, dimensioning, sections and conventions, primary and secondary auxiliary views, threads, fasteners, pictorial description, and the algebra, trigonometry and computer skills necessary to solve technical problems. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

EGR 102 General Engineering Drawing (4) (2, 4)
Prerequisite: EGR 101
General engineering drawing teaches the student how to draw and calculate three-dimensional problems. Successful completion of the course will allow the student to complete all graphics problems. The calculation of these problems is carefully taught and the writing is introduced. (1.1) Spring
Proficiency Credit Available
Pass/No Credit Not Available
ENGLISH COMPOSITION COURSES

Enrollment in English composition is contingent upon placement. After successfully completing the first semester of a sequential course, the student may enroll in the second semester of the course.

No student is allowed to register for English (ENG 101) without meeting one of the following prerequisites:

1. For students who took the ACT test before Aug. 1, 1989, an English ACT score of 18 or higher is required; or
2. For students who took the Enhanced ACT test after Aug. 1, 1989, an English ACT score of 20 or higher is required; or
3. Successful completion of ENG 098; or
4. Placement into ENG 101 based on placement test.

ACT scores must be on file in the ECC Records Office at the time of registration. Students with ACT scores lower than those specified in this section will be asked to complete the English placement test.

The student who must complete the English Placement Test should take the following steps:

1. Take the English Placement Test at the Testing Center at the Main Campus or Fountain Square Campus. No appointment is necessary and no fees are charged. Set aside about two and a half hours to complete the test.
2. Test results are mailed to students’ homes within seven to 10 business days after taking the test.

ADVANCED ENGLISH PLACEMENT

Credit for ENG 101 English Composition I will only be granted based upon the successful completion of the standardized CLEP Examination in English along with a locally graded essay examination or successful completion of the Advanced Placement Examination in English. Based on the score received on the Advanced Placement (AP) Examination in English, credit may be granted for English Language/Composition for ENG 101 (AP, 4), or ENG 101 and ENG 102 (AP, 5), or credit may be granted for English Literature/Composition for ENG 101 (AP, 4); or ENG 101 and LIT 215 (AP, 5).

ENG 101 English Composition I (3) (2, 2)

Prerequisite: Grade of C or better in ENG 098, placement, or ACT score of 20

First semester of one-year course normally required by all universities and colleges. Emphasis on improvement of communication through intensive work in composition, reading and skills of discussion. Major objective of course is to develop proficiency in writing thoughtful, well-organized, effective essays. Various forms of prose are studied to help the student achieve a critical understanding of both form and content and to serve as the basis of student essays. (1.1) Fall, Spring

Fulfills the ECC/IAI General Education/Communications requirement. IAI Course Number: C1 900

Proficiency Credit Available

Pass/No Credit Available

ENG 102 English Composition II (3) (3, 0)

Prerequisite: Grade of C or better in ENG 101 or placement through AP or CLEP exam

Second semester of one-year course normally required by all universities and colleges. Emphasis on achieving logic and precision in handling such extensive compositions as the research paper and persuasive and critical themes based on literature or other academic disciplines. (1.1) Fall, Spring, Summer

Fulfills the ECC/IAI General Education/Communications requirement. IAI Course Number: C1 901R

Proficiency Credit Not Available

Pass/No Credit Not Available

ENG 109 Expository Writing (3) (3, 0)

Prerequisite: ENG 102 or consent of instructor

The course offers further experience in organization, style and critical analysis. (1.1) Fall, Spring, Summer

Proficiency Credit Not Available

Pass/No Credit Available

ENG 110 Creative Writing (3) (3, 0)

Prerequisite: ENG 102 or consent of instructor

A one-semester study in creative writing. The student is expected to write and revise at least one short story of 8-10 pages, a set of 10-12 poems, and a literary non-fiction piece of 8-10 pages. (1.1) Fall, Spring

Proficiency Credit Not Available

Pass/No Credit Available

ENG 210 Fiction Writing (3) (3, 0)

Prerequisite: ENG 110 or consent of instructor

This course is designed to meet the needs of students who have completed preliminary work in creative writing and are now interested in focusing on the craft of fiction. Students will produce 45-50 pages of fiction, including multiple revisions. (1.1) On Demand

Proficiency Credit Not Available

Pass/No Credit Available

ENG 211 Playwriting (3) (3, 0)

Prerequisite: ENG 110 or consent of instructor

This course is designed to meet the needs of students who have already completed preliminary work in creative writing and are now interested in focusing on the craft of writing plays. Students will produce 45-50 pages of script, including multiple revisions. (1.1) On Demand

Proficiency Credit Not Available

Pass/No Credit Available
COURSE DESCRIPTIONS

ENG 212 Poetry Writing (3)  
**Prerequisite:** ENG 110 or consent of instructor  
This course is designed to meet the needs of students who have completed preliminary work in creative writing and are now interested in focusing on the craft of writing poetry. Students will produce 25-30 pages of poetry, including multiple revisions. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

ENG 213 Literary Non-Fiction (3)  
**Prerequisite:** ENG 110 or consent of instructor  
This course is designed to meet the needs of students who have completed preliminary work in creative writing and are now interested in focusing on the craft of literary non-fiction and the autobiographical essay. Students will produce 45-50 pages of literary non-fiction, including multiple revisions. (1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Available

ENTREPRENEURSHIP

All ENT courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

ENT 101 Entrepreneurship Seminar I (3)  
**Prerequisite:** None  
This course is designed as an introductory course in entrepreneurship, including an overview of the major elements associated with starting and maintaining a business enterprise including financial statement review, professional advisors, marketing issues and other related topics. Students examine various small businesses and analyze successful and unsuccessful business ownership and management practices. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

ENT 102 Entrepreneurship Seminar II (2)  
**Prerequisite:** Grade of C or better in ENT 101  
This course is designed as the second course in the series of two that provides the student with the opportunity to identify, review, analyze, and evaluate problems that arise in small business. The course will revolve around case studies and draw on the experiences of local entrepreneurs. Students will utilize problem-solving skills in both individual and group settings and formats to formulate solutions. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

ENT 111 Small Business Management (3)  
**Prerequisite:** None  
**Recommendation:** MMT 101  
This course is designed to help the student understand the advantages and disadvantages of going into business; know how to construct a business plan and how to get started; be able to identify the form of business that best meets the needs of the small business. The student should be able to recognize the obstacles to success and get an understanding of how to overcome them. (1.2) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

ENT 120 Business Plan Writing I (3)  
**Prerequisite:** Grade of C or better in ENT 101 or concurrent enrollment in ENT 101  
Students will develop and construct a market-ready business plan. Activities will concentrate on all areas of the business planning process including: business concept, product development, marketing, management, financing, and ongoing operation. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

ENT 145 e-Commerce: A Managerial Perspective (3)  
**Prerequisite:** Grade of C or better in MMT 101 and CIS 110 or OAT 130 or concurrent enrollment in MMT 101 and CIS 110 or OAT 130  
This course explores the business opportunities, challenges and strategies for the use of electronic commerce. Included will be an examination of retail issues, advertising methods and strategies, service industries, business-to-business concerns, and implementation strategies. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

NOTE: This course is offered concurrently as MMT 145. The student must decide whether to earn credits in Entrepreneurship (ENT) or Management (MMT) prior to enrolling.

ENT 200 The Virtual Company (4)  
**Prerequisite:** None  
The Virtual Company is a multidisciplinary course that integrates classroom instruction with business operation. Students will work at a simulated business firm in a state-of-art facility performing basic business functions of purchasing, accounting, marketing, and human resources. In addition, students transact business with other virtual companies throughout the world. Skills developed include inter- and intra-group communications, leadership, teamwork, problem solving, computer applications, and financial decision making. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

ENT 210 Small Business Finance (3)  
**Prerequisite:** Grade of C or better in ACC 101  
This course examines the various resources available for funding a small business. The student will analyze financial statements and write a loan proposal. The student will also gain an understanding of working capital and cash management. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

NOTE: This course is offered concurrently as MMT 210. The student must decide whether to earn credits in Entrepreneurship (ENT) or Management (MMT) prior to enrolling.

ENT 220 Business Plan Writing II (3)  
**Prerequisite:** Grade of C or better in ENT 120  
The second course in business planning in the Entrepreneurship track, students work in groups to develop, construct, present, evaluate, and analyze a market-ready business plan. Business plan development will include all areas of the business planning process including: business concept, product development, marketing, management, financing, and ongoing operation. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available
ENVIROMENTAL CONTROL SYSTEMS

All ECS courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

All repeatable ECS courses may be counted only once toward graduation and in the GPA.

ECS 101 Introduction to Direct Digital Controls (3)  
Prerequisite: Grade of C or better in CIS 110
Introduction to building management systems used in commercial buildings covering functions that include time-of day scheduling, temperature-dependent cycling, integrated zone temperature control, demand limit control, sensors, energy history logging, telephone communications, TOD, and alarms. Programming will also be introduced using different building management systems and installation of actual equipment will be performed. Course is repeatable to six credits. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

ECS 103 Commercial/Industrial Boilers (3)  
Prerequisite: Grade of C or better in HAC 101 and HAC 205 or concurrent enrollment in HAC 101 and HAC 205 or consent of instructor
Provide a comprehensive study of all aspects of high pressure boilers. Contents include steam boiler operations, accessories, boiler operation safety, computer and programmable controls, water treatment, and testing. Course is repeatable to six credits. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

ECS 104 Building Automation Systems I (3)  
Prerequisite: Grade of C or better in ECS 101
This course teaches students to configure INFINITY sites, workstations, and controllers. It covers how to assign users individual logons and passwords; then how to set up points, alarms, and alarm levels. Students will also learn how to set up and run schedules, groups, and graphic control panels. Course is repeatable to six credits. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

ECS 105 Programming in Plain English (3)  
Prerequisite: Grade of C or better in ECS 104 or concurrent enrollment in ECS 104
This course introduces students to INFINITY Plain English Programming. The course presents fundamentals of how to design and write programs, functions, and reports. The student will develop various programs in Plain English for simple everyday applications and learn special testing and debugging techniques. Each topic is discussed in detail and followed by a lab. Course is repeatable to six credits. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

ECS 106 Commercial Electronic Control Systems (3)  
Prerequisite: Grade of C or better in ECS 104 and ECS 105
This course teaches the intermediate-level INFINITY Plain English programmer to write specific HVAC applications. The course provides several partially written application programs that students will be required to complete. This will give the student the opportunity to debug and test the programs. Course is repeatable to six credits. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

ECS 107 Building Automation Systems II (3)  
Prerequisite: Grade of C or better in ECS 104 and ECS 105
This course teaches the intermediate-level INFINITY Plain English programmer to write specific HVAC applications. The course provides several partially written application programs that students will be required to complete. This will give the student the opportunity to debug and test the programs. Course is repeatable to six credits. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

ECS 108 Commercial Electronic Control Systems (3)  
Prerequisite: Grade of C or better in HAC 104 and HAC 212 and ECS 101 or concurrent enrollment in HAC 212 or consent of instructor
This course is geared towards students and those individuals with some background in HVACR electronic controls. Emphasis is placed on function and application of HVACR electronic control systems. The subject material is structured for maximum participation in the interpretation of control sequences and selection of equipment. Course is repeatable to six credits. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

ECS 110 Codes and Standards (2)  
Prerequisite: Grade of C or better in HAC 205 or consent of instructor
Familiarization with and identification of sources of current federal, state, local codes and standards (ASHRAE) applied to building, plumbing, electrical, heating, ventilation, refrigeration and air conditioning systems. Course is repeatable to four credits. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

ECS 114 IAQ for Commercial Buildings (3)  
Prerequisite: Grade of C or better in HAC 205 or consent of instructor
This course covers IAQ problems that face building occupants and problems confronting building managers in buildings today. IAQ guidelines, EPA, OSHA, and other federal regulations will be covered as well as solving indoor air quality problems. Course is repeatable to six credits. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

ECS 202 Commercial Load Calculations (3)  
Prerequisite: Grade of C or better in HAC 101 and HAC 205 or concurrent enrollment in HAC 101 and HAC 205 with consent of instructor
Provides a comprehensive study for heating and cooling load calculations for commercial buildings. Provides a wide range of procedures both manual calculations procedures and computer-assisted. Emphasizes the Transfer Function Method (TFM) as a baseline procedure. CLTD/SCF/CLF are discussed. Course is repeatable to six credits. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

ECS 206 Commercial Duct Design (3)  
Prerequisite: Grade of C or better in ECS 202 or consent of instructor
A study in commercial duct design to provide the student a primer on the theory and on the factors that relate to designing low pressure, low velocity air distribution systems. Duct sizing methods will include equal friction method, static regain, constant velocity, velocity reduction, and modified equal friction methods. A study in commercial duct design to provide the student a primer on the theory and on the factors that relate to designing low pressure, low velocity air distribution systems. Duct sizing methods will include equal friction method, static regain, constant velocity, velocity reduction, and modified equal friction methods. Course is repeatable to six credits. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

ECS 215 Commercial Applications Systems (3)  
Prerequisite: Grade of C or better in ECS 110 and ECS 114
Recommended: MTH 112
Students will use design procedure in selecting HVAC systems and performing the calculations and procedures that are required to size and locate the HVAC equipment and associated component for commercial buildings. Specifications of control and control cycles, layout, and designing of energy-efficient combination systems (heating and cooling) found in commercial and industrial buildings will also be covered. State-of-the-art equipment and control systems will be studied for maximum energy efficiency. This course bridges the gap between actual design and the theoretical knowledge. Course is repeatable to six credits. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

ECS 219 Industry-Related Projects (3)  
Prerequisite: Grade of C or better in ECS 215
This course will allow the student to examine the role of the HVACR technician in the workplace. Students will be exposed to several actual projects and the problems associated with those projects. Students must have access to the facility where the projects are located. Students will present their work in a professional manner to demonstrate their understanding of the subject matter. Course is repeatable to six credits. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available
FIRE SCIENCE AND SAFETY

All FSS courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

FSS 101 Introduction to Fire Science (3)  
Prerequisite: None  
Introduction to fire problems, history, evaluation and survey of fire protection characteristics and behavior of fire, chemistry of fire, building construction, extinguishing agents and hazardous materials identification, EMS in the fire science, communications, municipal water systems, equipment identification and use, protective systems, fire prevention, and terrorism awareness. (1.2) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available

FSS 102 Fire Prevention Principles I (3)  
Prerequisite: FSS 204 or consent of instructor  
Course required of eligible candidates pursuing Illinois certification as a Fire Officer I. This course is designed to meet the needs of individuals who are expanding their knowledge about fire department operations. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

FSS 103 Fire Suppression (3)  
Prerequisite: FSS 101 or consent of instructor  
Survey of fire suppression organizations; basic elements of fire ground tactics and organization; manpower and equipment utilization; survey of building designs, construction, hazardous materials; extinguishing agents, equipment and apparatus. (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

FSS 201 Fire Fighting Tactics & Strategy I (3)  
Prerequisite: FSS 204 or consent of instructor  
An introduction to the basic principles and methods associated with fire ground tactics and strategy as required of the company officer. Emphasizes size-up, fire ground operations, pre-fire planning, and basic engine and truck company operations. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

FSS 202 Hazardous Materials (3)  
Prerequisite: FSS 204 or consent of instructor  
Study of chemical characteristics and reactions related to storage, transportation, handling hazardous materials, i.e. flammable liquids, combustible solids, oxidizing and corrosive materials and radioactive compounds. Emphasis on emergency situations and fire fighting and control. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

FSS 203 Fire Apparatus Engineer Specialist (4)  
Prerequisite: FSS 103 or consent of instructor  
This course is designed to meet the needs of those individuals who wish to expand their knowledge as an Engineer/Operator. The course design is structured to provide the learner with fundamental theories, facts, concepts, and principles, requirements and procedures, equipment and components and to utilize this knowledge effectively in making sound value judgements and in affecting changes in behavior and practices. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

FSS 204 Fire Protection Systems (3)  
Prerequisite: FSS 101 or consent of instructor  
A study of the required standards for water supplies: protection systems; automatic sprinklers and extinguishing systems including analysis of various automatic signaling and detection systems. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

FSS 205 Fire Service Management I, Officer Role and Function (3)  
Prerequisite: FSS 204 or consent of instructor  
One of two management courses required of eligible candidates pursuing Illinois certification as a Fire Officer I. Acquaints the student with the role of the company officer and provides an introduction to basic management theories, practices, and functions. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

FSS 206 Fire Service Management II, Communication and Group Dynamics (3)  
Prerequisite: FSS 204 or consent of instructor  
One of two management courses required of eligible candidates pursuing Illinois certification as a Fire Officer I. Acquaints the student with the principles of communication and group dynamics as they relate to the company officer. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

FSS 214 Fire Service Instructor-Basic Level (3)  
Prerequisite: FSS 204 or consent of instructor  
This course is designed to meet the guidelines of the Illinois Fire Protection Personnel Standards and Education Commission to qualify fire service personnel to conduct training and education classes for others in the field. It is designed to teach the fire officer how to be more proficient in his or her work and how to use the resources that are available to him/her. Also how to utilize outlines, prepare classes, utilize tests, as well as participate in practice teaching where he/she can be evaluated. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

FSS 215 Emergency Medical Technician-Basic (6)  
Prerequisite: A current CPR card. Only these two will be accepted: an American Heart Association Healthcare Provider CPR card OR an American Red Cross Professional Rescuer CPR card  
Basic purpose of the course is to develop student skill in patient assessment and emergency treatment procedures. The medical emergencies covered in the course include cardiac, resuscitation, and treatment of existing medical conditions such as diabetes, epilepsy, and emergency childbirth. Specific attention is directed toward definitive treatment and transportation of traumatic injuries. The course also consists of extensive practical application of all treatment modalities. (1.2) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available
FIT 100: Fitness Instructor Fundamentals I (3) (3, 0)
Prerequisite: None
Area physicians, physical therapists, and other sports medicine professionals will show students how to teach others that looking good means understanding what happens inside your body. Content will cover anatomy and kinesiology, muscle physiology, injury prevention, nutrition, and health screening appropriate to a fitness instructor. (1.1) Fall
Proficiency Credit Not Available
Pass/No Credit Available

FIT 200: Fitness Instructor Fundamentals II (3) (3, 0)
Prerequisite: FIT 100
A continuation of the Fitness Instructor Fundamentals I course with advanced topics covering the cardiovascular system, designing a fitness program, choreography, managing stress, and professional responsibilities and liabilities. (1.6) Spring
Proficiency Credit Not Available
Pass/No Credit Available

FLF 101: Elementary French (4) (4, 0)
Prerequisite: None
Designed for students who have no previous background in French. Includes essentials of grammar, pronunciation, practice in sentence structure, elementary composition and conversation. Emphasis is placed on the acquisition of the following skills: listening, speaking, reading and writing. (1.1) Fall
Proficiency Credit Available
Pass/No Credit Available

FLF 102: Elementary French (4) (4, 0)
Prerequisite: FLF 101 or 1 year H.S. French or 1 college semester French or placement
Continuation of FLF 101, Elementary French. Four hours of presentation, discussion and practice. (1.1) Spring
Proficiency Credit Available
Pass/No Credit Available

FLF 103: Intermediate French (4) (4, 0)
Prerequisite: FLF 102 or 2 years H.S. French or 2 college semesters French or placement
Builds on FLF 101 and FLF 102 grammar aspects and vocabulary review. Specifically focuses on more complex grammatical concepts, composition, vocabulary building and conversation. (1.1) Fall
Proficiency Credit Available
Pass/No Credit Available

FLF 104: Intermediate French (4) (4, 0)
Prerequisite: FLF 103 or 3 years H.S. French or 3 college semesters French or placement
Includes general grammar review of structure and most verb tenses. Presents additional tenses to complete the French verb system. Expands vocabulary and integrates composition exercises. Oral presentations and written assignments will be based on language and cultural audio and video tapes. The reading of short stories, novels, plays and/or poetry by French authors may also be assigned in preparation for class discussion. (1.1) Spring
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H1 900
Proficiency Credit Available
Pass/No Credit Available

FLF 110: Conversational French I (3) (3, 0)
Prerequisite: FLF 104 or 3 years H.S. French or 3 college semesters French or placement
Recommended: Concurrent enrollment in FLF 103 or higher
This conversation course allows students to use basic language skills learned in elementary French classes. Students develop confidence in speaking as they interact with each other and with instructor in French. Guidance is provided for discussion topics, vocabulary use and grammatical structure. But, explanations are kept at a minimum. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

FLF 120: Conversational French II (3) (3, 0)
Prerequisite: FLF 103 or 3 years H.S. French or 3 college semesters French or placement
Recommended: Concurrent enrollment in FLF 104 or higher
Students aim at becoming more fluent speakers, as all conversations in class will be in French. Specifically assigned discussion topics focus on expanding vocabulary use and gaining confidence in the application of grammatical principles. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

NOTE: This course is not a substitute for FLF 103 and 104 which are required for Foreign Language majors.

FLF 201: French Conversation and Composition (3) (3, 0)
Prerequisite: FLF 104 or 4 years H.S. French or 4 college semesters French or placement
Intensive work aimed at developing speaking and writing skills. Considerable attention paid to spontaneous conversation styles and precise composition work. The increase of comprehension skills will be supported by the use of audio and video tapes and films. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Available
FLF 202 Advanced French Composition and Conversation (3)(3, 0)  
**Prerequisite:** FLF 201 or 5 college semesters French or placement  
Continuation of FLF 201, French Conversation and Composition, with emphasis on compositions based on literary works of major authors, current newspapers and periodicals. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

GED PROGRAM  
(See page 78)

GENERAL STUDENT DEVELOPMENT

All GSD courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

GENERAL STUDENT DEVELOPMENT-CAREERS

GSD 120 Exploring Careers and College Majors (1)  
**Prerequisite:** None  
Intended as an aid to students who are undecided or uncertain as to a college program of study and the subsequent occupational fields that are closely related to academic training. On a structured, small group basis the student will be exposed to topics on the following steps on the career ladder: The relationship of personal interests, values, abilities, and life style preferences to career decision-making, work stereotypes and barriers; an assessment of interest, values and abilities as well as how to interpret such assessments; the philosophy of work and the meaning of “career;” the relevant aspects of planning a career, such as the availability of training, cost, length of training, job market and future job trends. The participant will have ample opportunity to interact with the instructor and other students. (1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Available

GSD 140 Guided Career/Life Transitions (1)  
**Prerequisite:** None  
A course for persons who would like to change their career path with assistance of a professional career counselor. This course will incorporate information about the participants' interest, values, and transferable skills with information about how to research the local job market and training requirements. Interview skills, resume writing, and job search strategies will be developed. At the end of the course, the participants will have a clearer idea of their future career path and will have learned the process and tools necessary to make a career transition. (1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Available

GSD 160 Job Search Strategies (1)  
**Prerequisite:** None  
This course focuses on the strategies and materials needed to conduct a successful job search. Students will learn a wide variety of job search strategies and how to maintain a consistent search and a positive perspective. They will write a resume and related correspondence, learn the process of informational interviewing, and practice employment interviews using video feedback. (1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Available

GENERAL STUDENT DEVELOPMENT-STUDENT SUCCESS

GSD 101 Keys to Success (2)  
**Prerequisite:** None  
This course provides new students with an extensive orientation to college. Students will explore the various student support resources at Elgin Community College. Topics include: achieving success in college, managing finances, motivation and goal setting, learning styles, relating to others, and self-esteem. This class has a strong emphasis on group work and peer learning. (1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Available

GSD 104 Peer Helper Training (1.5)  
**Prerequisite:** None  
Project STEP (Students Teaching and Encouraging Prevention) will train students to be Peer Helpers. The peer helper will help students clarify their attitude towards drugs and alcohol and refer students to sources of help when this is necessary. (1.2) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Available

GENERAL STUDENT DEVELOPMENT-VOLUNTEER

GSD 150 SERVE - Volunteer (Variable Credit .5-1)  
**Prerequisite:** None  
This course is intended to meet legislative guidelines which provide students with opportunities to participate in community service experiences. Students will select and be placed in an agency based on their skills, knowledge and interest. Opportunities may include, but are not limited to, tutoring, literacy training, neighborhood improvement, increasing environmental safety, animal shelter care, assisting the elderly or disabled, and providing mental health care. Repeatable to four credits. (1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Available

GSD 150 SERVE - Volunteer (Variable Credit .5-1)  
**Prerequisite:** None  
This course is intended to meet legislative guidelines which provide students with opportunities to participate in community service experiences. Students will select and be placed in an agency based on their skills, knowledge and interest. Opportunities may include, but are not limited to, tutoring, literacy training, neighborhood improvement, increasing environmental safety, animal shelter care, assisting the elderly or disabled, and providing mental health care. Repeatable to four credits. (1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Available

GSD 150 SERVE - Volunteer (Variable Credit .5-1)  
**Prerequisite:** None  
This course is intended to meet legislative guidelines which provide students with opportunities to participate in community service experiences. Students will select and be placed in an agency based on their skills, knowledge and interest. Opportunities may include, but are not limited to, tutoring, literacy training, neighborhood improvement, increasing environmental safety, animal shelter care, assisting the elderly or disabled, and providing mental health care. Repeatable to four credits. (1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Available

GSD 150 SERVE - Volunteer (Variable Credit .5-1)  
**Prerequisite:** None  
This course is intended to meet legislative guidelines which provide students with opportunities to participate in community service experiences. Students will select and be placed in an agency based on their skills, knowledge and interest. Opportunities may include, but are not limited to, tutoring, literacy training, neighborhood improvement, increasing environmental safety, animal shelter care, assisting the elderly or disabled, and providing mental health care. Repeatable to four credits. (1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Available
COURSE DESCRIPTIONS

GEOGRAPHY

GEO 115 fulfills the physical sciences requirement in the Associate in Arts, Associate in Science, and Associate in Fine Arts Degrees.

GEO 115 also fulfills the science requirement in the Liberal Studies Degree.

GEO 116 fulfills the social sciences requirement in the Associate in Arts, Associate in Science, Associate in Fine Arts and Associate in Engineering Science Degrees.

All GEO courses numbered 100 and above may be used to fulfill the social science requirement in the Associate in Liberal Studies; and Associate of Applied Science Degrees.

All GEO courses numbered 100 and above may also be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

GEO 115 Introduction to Physical Geography (3) (3, 0)
Prerequisite: None
A survey of the physical environment and its effects on humanity. Topics include weather, climate, winds, rivers, oceans, earthquakes, volcanos, and glaciers. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Physical Sciences requirement.
IAI Course Number P1 909
Proficiency Credit Available
Pass/No Credit Not Available

GEO 116 Human Geography (3) (3, 0)
Prerequisite: None
A survey of the many ways humanity has adapted to the various environments and the effects of human populations on the earth. Topics include population, race, religion, language, political, and economic systems. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Social Sciences requirement.
IAI Course Number: S4 900N
Proficiency Credit Available
Pass/No Credit Not Available

GEOLOGY

GLY 105 fulfills the physical sciences requirement for the Associate in Arts, Associate in Science, and Associate in Fine Arts Degrees.

GLY 112 fulfills both the physical sciences requirement and the lab science requirement for the A.A., A.S., and A.F.A. Degrees.

GLY 112 may be used to fulfill the lab science requirement in the Associate in Liberal Studies Degrees.

All GLY courses numbered 100 and above may be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

All GLY courses numbered 100 and above may also be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

GLY 105 Environmental Geology (3) (3, 0)
Prerequisite: None
A non-technical survey of geological phenomena that relate directly to our present and future environmental problems. Includes natural hazards such as earthquakes and flooding. Deals with society related concerns such as waste disposal and resource depletion. Much emphasis on energy-related topics. (1.1) Spring
Fulfills the ECC/IAI General Education/Physical Sciences requirement.
IAI Course Number P1 908
Proficiency Credit Not Available
Pass/No Credit Not Available

GLY 112 Physical Geology (4) (3, 2)
Prerequisite: None
Introductory course in historical and physical geology covering nature and properties of materials composing the earth. Includes studies and observations of the distribution of materials throughout the globe and processes by which they are formed, altered, transported and distorted. Lecture and laboratory. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Physical Sciences requirement.
IAI Course Number P1 907L
Proficiency Credit Not Available
Pass/No Credit Not Available

GERMAN

FLG 104 may be used to fulfill the humanities requirement for the Associate in Arts, Associate in Science, Associate in Fine Arts and Associate in Engineering Science Degrees.

All FLG courses numbered 100 and above may be used to fulfill the liberal education requirement in the Associate of Applied Science Degree.

All FLG courses numbered 100 and above may be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

ADVANCED GERMAN PLACEMENT

Based on the score received on the Advanced Placement (AP) Examination, credit is available for FLG 102 and FLG 103 (AP, 3), FLG 103 and FLG 104 (AP, 4), and FLG 104 and FLG 201 (AP, 5) AND for German Literature, credit is available for FLG 104 and 201 (AP, 4).

FLG 101 Elementary German (4) (4, 0)
Prerequisite: None
Designed for students who have no previous background in German. Includes essentials of grammar, pronunciation, practice in sentence structure, elementary composition and conversation. Emphasis is placed on the acquisition of the following skills: listening, speaking, reading and writing. (1.1) Fall
Proficiency Credit Available
Pass/No Credit Available

FLG 102 Elementary German (4) (4, 0)
Prerequisite: FLG 101 or 1 year H.S. German or 1 college semester German or placement
Continuation of FLG 101, Elementary German. (1.1) Spring
Proficiency Credit Available
Pass/No Credit Available

FLG 103 Intermediate German (4) (4, 0)
Prerequisite: FLG 102 or 2 years H.S. German or 2 college semesters German or placement
Includes grammar review from FLG 101 and 102. Specifically focuses on more complex grammatical concepts, composition, vocabulary building and practice in conversation. Supplementary intermediate level material may be read in class or as outside assignments. (1.1) Fall
Proficiency Credit Available
Pass/No Credit Available
GERONTOLOGY
(See Human Services)
GRD 110 Illustration I (3) (1, 4)
Prerequisite: GRD 102

In this studio course students will research various commercial artists and illustrators. They will be introduced to many different techniques used in the commercial field and will be encouraged to develop their own style. Pen and ink, pencil, water mediums, colored pencil, clayboard, pastel, and airbrush will be introduced. (1.2) Fall

Proficiency Credit Available
Pass/No Credit Not Available

GRD 115 History of Graphic Design (3) (3, 0)
Prerequisite: None

This course surveys the history of graphic design from pictographs painted on cave walls to digitally created electronic designs. It will discuss visual communication as it relates to culture and society. It will examine the influences of technology on each culture and how it affects the aesthetics of graphic design. (1.2) Fall

Proficiency Credit Not Available
Pass/No Credit Not Available

GRD 200 Computer Type Design (3) (1, 4)
Prerequisite: GRD 101 and GRD 104 and GRD 203 and GRD 204 and GRD 207; can concurrently enroll in GRD 207

An advanced course concerned with message design and visual communication from a typographic perspective. Information theory, language systems, and the semantics of style are explored through a variety of media and assignments. This course will cover various uses of type starting with the written work and encompassing type as an element of design and type as art. Students will work with Illustrator, Photoshop, and QuarkXpress. Previous knowledge of these programs is required. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

GRD 201 Presentation Graphics (3) (1, 4)
Prerequisite: GRD 203 and GRD 204 or consent of instructor

This course will provide an overview of presentation graphics. Emphasis is on electronic presentations but will also cover overhead transparencies, posters, flip charts and handouts. Design, layout and color are stressed. Students will create their own graphs and diagrams to produce electronic slide shows. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

GRD 203 Designing with Quark I (3) (1, 4)
Prerequisite: OTS 100 or consent of instructor. Can concurrently enroll in OTS 100

This is an introductory course to electronic page layout concentrating on those areas which are most demanding in the business world. Students will be able to create documents, and import and edit text and graphics. Additional areas covered will include master pages, style sheets and libraries. (1.2) Fall, Spring, On Demand

Proficiency Credit Available
Pass/No Credit Not Available

GRD 204 Design/Adobe Illustrator I (3) (1, 4)
Prerequisite: OTS 100 or consent of instructor

This is an introductory course in creating computer illustration using Adobe Illustrator. Students will learn the fundamentals of the program while creating electronic vector based images. (1.2) Fall, Spring, Summer

Proficiency Credit Available
Pass/No Credit Not Available

GRD 205 Designing with Quark II (3) (1, 4)
Prerequisite: GRD 203 and GRD 204

This course is a continuation of Designing with Quark I with concentration on more complex publications, design problems, and advanced techniques. The integration of other programs to complete projects will be introduced. Large document management is covered. (1.2) Fall, Spring, On Demand

Proficiency Credit Available
Pass/No Credit Not Available

GRD 206 Design/Adobe Illustrator II (3) (1, 4)
Prerequisite: GRD 204

Continuation from GRD 204. Output, input and processing systems are reviewed. Hand imaging and image transformation is emphasized. Advanced techniques in Adobe Illustrator are introduced. Design applications are assigned. (1.2) Fall, Spring, On Demand

Proficiency Credit Available
Pass/No Credit Not Available

GRD 207 Image Design/Photoshop I (3) (1, 4)
Prerequisite: GRD 203 and GRD 204 or consent of instructor

This class will cover the basics of Photoshop. Students will work with tools, masking features, layers, filters, basic special effects, channels and the digital camera. Image manipulation, editing, repair, and simple color correction will also be covered. (1.2) Fall, Spring, On Demand

Proficiency Credit Available
Pass/No Credit Not Available

GRD 208 Airbrush Illustration (3) (1, 4)
Prerequisite: Grade of C or better in GRD 100 and GRD 101 and GRD 103

This course is designed for artists, illustrators, and individuals interested in learning a new illustration technique to enrich their existing skills. For those individuals in the Graphic Design and Illustration programs, this course will provide new skills that will prove useful in their respective fields. The basics of airbrush illustration will be covered and expanded upon. Various illustration techniques will be introduced and applied to a variety of subjects and materials. Airbrush artists’ styles will be introduced. Course is repeatable to nine credit hours. (1.2) Spring

Proficiency Credit Available
Pass/No Credit Not Available

GRD 212 Illustration II (3) (1, 4)
Prerequisite: GRD 110

This class is a continuation of Illustration I. Development of individual style, creativity, originality, and design will be stressed. Students will be allowed to explore and refine techniques in illustration using various media. The computer will be introduced as an illustration tool and used in conjunction with traditional media. (1.2) Fall

Proficiency Credit Available
Pass/No Credit Not Available

GRD 213 Electronic Prepress (3) (1, 4)
Prerequisite: GRD 204, GRD 205, and GRD 207

This course teaches the basic concepts of electronic prepress. Preparation of electronic documents for print production using industry standard software will be explored. Topics include scanning images, digital image manipulation, color corrections, saving files in proper formats and preflight. Students will study the use of grayscale, spot color, process color, graphics and fonts to produce files for service bureaus and commercial printers. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available
GRD 214 Portfolio Review (1) (0, 2)
Prerequisite: Consent of instructor
Students explore the presentation and interviewing techniques used to find employment. Grooming of student portfolios, resume, cover letter and other business correspondence are stressed. Oral skills are also reinforced. Effective presentation skills and project refinements are covered. Students learn the components of business management. Basic record keeping, copyrights, contracts and business ethics are covered. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

GRD 219 Web Basics (3) (1, 4)
Prerequisite: None
This course will introduce the student to basic concepts about computers and the Internet. It will discuss the basics of working on a PC and a Macintosh computer. It will investigate how to use the web as a development resource, how to name and organize files and directories for a web site, introduce the file formats used on the web, how to upload files to a server, how to code HTML documents using a text editor and discuss the uses of WYSIWYG editors in a production environment. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

GRD 220 Web Graphics (3) (1, 4)
Prerequisite: GRD 204 and GRD 207 and GRD 219 or consent of instructor. Can concurrently enroll in GRD 219.
This course will explore the design of graphics authored for Internet viewing. Applying skills developed in their foundation coursework, students will be introduced to web specific design considerations. Course will cover image optimization, using images as navigation devices, text as image, GIF animations, simple javascripts and design principles for effective communication over the web. Primary applications are Adobe Photoshop/Image Ready, Adobe Illustrator and Macromedia Dreamweaver. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

GRD 221 Web Page Design (3) (1, 4)
Prerequisite: GRD 219 and GRD 220 or consent of instructor
This course will explore Internet page design and website creation. Drawing on skills to produce and format images developed in their previous coursework, students will focus on design considerations that facilitate effective communication over the World Wide Web. The course will cover creating an HTML document; configuring, uploading and managing a website; and navigation and interactivity. Emphasis will be placed on visual design in conjunction with site usability and functionality. Primary development applications will be Macromedia Dreamweaver, Adobe Photoshop/Image Ready and Adobe Illustrator. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

GRD 222 Advanced Web Design Techniques (3) (1, 4)
Prerequisite: GRD 220 or consent of instructor
This course will explore advanced web graphics and the use of script programming to develop web animations and interactive interfaces. Students will create animated movies within the Macromedia Flash, integrate them into the HTML environment, and then publish them for internet delivery. Primary development applications will be Macromedia Flash and Adobe Illustrator. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

GRD 225 Adobe Acrobat (3) (1, 4)
Prerequisite: Grade of C or better in GRD 203 and GRD 204 and GRD 207 or consent of instructor
This course will cover various features of Adobe Acrobat's Portable Document Format (PDF). PDF documents will be created from various software applications to be viewed or printed on any computer operating system as well as other output devices. Exploration of various topics including customizing output, uploading documents online, sending PDF e-mails, creating forms, and building a searchable PDF library and catalog. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

GRD 227 Image Design/Photoshop II (3) (1, 4)
Prerequisite: Grade of C or better in GRD 207 or consent of instructor
This course is an advanced level of Adobe Photoshop and is a continuation of GRD 207, Image Design/Photoshop I. It will extend the existing skills and/or update outdated skills of Photoshop users. Advanced techniques, features, and attributes will be explored through a number of challenging assignments using the current version of Adobe Photoshop. Experimental work tailored to individual needs for building a portfolio or building professional skills will be addressed. Some prepress techniques will be introduced and covered. A strong emphasis on composition, color, technical proficiency and aesthetic judgments is stressed in this course. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

GRD 230 Introduction to Multimedia Design (3) (1, 4)
Prerequisite: Grade of C or better in GRD 104 and GRD 106 and GRD 201 and GRD 203 and GRD 204 and GRD 207 or consent of instructor
This course introduces students to the fundamentals of multimedia design and production. The students will learn the essentials of multimedia design and authoring software in a hands-on integrated computer environment. Students will learn how to combine graphics, audio and text to create interactive design for commercial and educational applications. This course will provide the skills necessary to use software applications such as Macromedia Director to create business or educational kiosks, games, CD Roms, teaching CDs and presentations. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

GRD 231 Information Architecture (3) (1, 4)
Prerequisite: Grade of C or better in GRD 201, GRD 203, GRD 204 and GRD 207; can concurrently enroll in GRD 220, GRD 221 and GRD 230
This course will examine a variety of web-based interfaces and develop an understanding for screen ergonomics and site usability. Activities will include the exploration of a site’s objectives, design, functionality requirements, and the creation of a high-level process overview that facilitates information architecture. The final project will be a site plan that documents the evolution and discoveries made in the development of the Information Architecture phase of a web development project. This class will emphasize effective information design and is not a programming class. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available
GRD 232 Multimedia Design (3) (1, 4)
Prerequisite: Grade of C or better in GRD 230 and GRD 231
This course is a continuation of Introduction to Multimedia Design, where students will learn to use graphics sound and text in more advanced ways with a strong emphasis on design and technical skills. Interactive design and information design will be covered. Different styles of digital presentations, types and styles of sound and background music will be explored. Research, appearance, structure and sequence of information for the creation of presentations to meet client goals in the marketplace will be studied. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

GRD 233 Digital Video and Editing (3) (1, 4)
Prerequisite: Grade of C or better in GRD 230 and GRD 231
This course will explore digital imaging using a camcorder to capture images. Moving and still images will be edited using Premiere and After Effects as the primary software tools. Output and compression for various media will be addressed. The student will learn the operation of two dimensional video graphics systems as they are used in corporate settings, digital movies, movie clips for the Web and video tapes. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

GRD 234 Multimedia Production (2) (1, 2)
Prerequisite: Grade of C or better in GRD 230 and GRD 231
Production issues relating to project initiation, budget, status reports, client input, deadlines and legal matters will be introduced in this course. Students will collectively plan, design and create a project such as an information kiosk, computer assisted instruction or an interactive game. Special emphasis will be placed on teamwork and the development of project management. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

GRD 235 Special Topics in Graphic Design (Variable Credits 1-3) (.5-1, 1-4)
Prerequisite: Consent of instructor
Practical application and individual development in the field of graphic design. Directed specialized study under instructor supervision. Students will develop a plan of study with the instructor or the instructor will propose a specialized area of study. This course is used to increase skills and knowledge in the graphic design field. Course is repeatable to 12 credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

GRD 239 Multimedia Internship (1) (0, 5)
Prerequisite: Grade of C or better in GRD 230 and GRD 231 or consent of instructor; can concurrently enroll in GRD 232 and GRD 233 and GRD 234
Students will gain "real world" experience working in the marketplace as an apprentice/intern for a company that produces multimedia applications. A faculty member as well as a working supervisor will monitor the student's work ethic and progress. A job description will be agreed upon by the student, supervisor and instructor. A minimum of 80 hours will be required. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

HEALTH
(See Physical Education)

HEALTH PROFESSIONS
(See Clinical Laboratory Technology, Dental Assisting, Emergency Medical Technology-Paramedic, Health Professions Education, Nursing, Phlebotomy & Surgical Technology)

HEALTH PROFESSIONS EDUCATION

HPE 112 Introduction to Healthcare Vocabulary (3) (3,0)
Prerequisite: Grade of C or better in BIO 110 or its equivalent
A special vocabulary is used by health care professionals. This course is designed for those who plan to enter a health care field to develop proficiency in the use of medical terms. The student will learn to build and analyze medical words associated with each body system utilizing knowledge of suffixes, prefixes, root words, and combining forms. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

HEALTH PROFESSIONS EDUCATION: GENERAL STUDIES

The following HPE course is not intended for transfer and not applicable to any ECC degree.

HPE 110 Foundations for the Health Professions (3) (2,2)
Prerequisite: Grade of C or better in one year high school science
Recommended: High school biology highly recommended
Course introduces the student to health care core concepts and lays the foundation for future study in the health professions. Content includes the health care system: past, current and future trends; professionalism; career opportunities; health/wellness, safety; computers/technology in healthcare environment; and teamwork. Course will consist of classroom theory and concurrent laboratory/clinical experiences in simulated situations and healthcare agencies. This course is highly recommended for all students prior to applying to any health professions program. (1.6) Fall
Proficiency Not Available
Pass/No Credit Not Available
**HEATING, VENTILATION, AIR CONDITIONING & REFRIGERATION**

All HAC courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

All repeatable HAC courses may be counted only once toward graduation and in the GPA.

<table>
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<td>HAC 102 Air Conditioning &amp; Refrigeration II (4)</td>
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<td>Grade of C or better in HAC 101 and HAC 114 and HAC 119 or consent of instructor</td>
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<td>(1.2) Fall, Spring</td>
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<td>HAC 103 Basic Heating Gas/Oil (3)</td>
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<td>HAC 114 or consent of instructor</td>
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<td>HAC 104 HVAC Controls (3)</td>
<td>(2, 2)</td>
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<td>Grade of C or better in HAC 114 or concurrent enrollment in HAC 114 or consent of instructor</td>
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<td>HAC 106 Advanced Heating Hydronics/Steam (3)</td>
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<td>HAC 109 Basic Sheet Metal (3)</td>
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<td>HAC 114 Basic Electricity and HVACR Controls (3)</td>
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<td>HAC 115 Blueprint Reading for Heating and Air Conditioning (3)</td>
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<tr>
<td>HAC 116 Cost Estimating for Sheet Metal (3)</td>
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<td>(1.2) Fall, Spring</td>
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**HAC 101 Air Conditioning & Refrigeration I (3) (2, 2)**

**Prerequisite:** None

Emphasis on reducing emission of fully halogenated chlorofluorocarbon (CFC) refrigerants in refrigeration and air-conditioning equipment and application. Studies the compressor system used in mechanical refrigeration and air-conditioning. Covers the refrigeration cycle, compressors, receivers, evaporators, condensers, metering devices and refrigerants. Attention is given also to temperature conversions, absolute temperature, and gas laws. Introduces safe and efficient use of tools and torches in the installation of copper and steel piping. Refrigerant management, recovery, recycling and reclaiming will be covered to prepare the student for EPA technician certification. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Available

**HAC 102 Air Conditioning & Refrigeration II (4) (2, 4)**

**Prerequisite:** Grade of C or better in HAC 101 and HAC 114 and HAC 119 or consent of instructor

Continuation of HAC 101, emphasizing the construction of equipment, systems, controls and accessories found in refrigeration and air conditioning units systems. Special emphasis is given to servicing, repair, testing, installation, charging, reading and wiring from ladder diagrams, and troubleshooting. Emphasis will also be placed on charging and working with non ozone depleting refrigerants. Repeatable to eight credits. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

**HAC 103 Basic Heating Gas/Oil (3) (2, 2)**

**Prerequisite:** HAC 114 or consent of instructor

Will cover the theory and fundamentals of heating and combustion. The course will cover the basic heating units of gas and oil. The cleaning and servicing of them, and the control systems will also be covered. Repeatable to six credits. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

**HAC 104 HVAC Controls (3) (2, 2)**

**Prerequisite:** Grade of C or better in HAC 114 or concurrent enrollment in HAC 114 or consent of instructor

This course will cover the special controls used on commercial and industrial heating, air conditioning and refrigeration equipment. The operation, testing and servicing of these controls will also be covered. Repeatable to six credits. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

**HAC 106 Advanced Heating Hydronics/Steam (3) (2, 2)**

**Prerequisite:** HAC 103 or consent of instructor

The theory and principles of steam, water piping, and their components will be covered. Boiler system operation, low pressure, pumps, controls, water treatment, accessories, service and preventive maintenance, heat load calculations will be covered. Repeatable to six credits. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

**HAC 109 Basic Sheet Metal (3)**

**Prerequisite:** Grade of C or better in HAC 115 or concurrent enrollment in HAC 115 or consent of instructor

A basic course covering triangulation stresses and layout of sheet metal ducts and fittings. All layout will be done on paper in this course and then sample construction will be done in lab. Repeatable to six credits. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

**HAC 110 Heat Pumps and Electrical Heat (3)**

**Prerequisite:** HAC 102 or consent of instructor

Theory of refrigeration cycle with respect to heat pumps and electrical heat theory. Covers mechanical and electrical operation, service, repair, and proper installation. Also geothermal heat pumps will be covered. Students will also take the RSES National Certification Heat Pump course. Book can be purchased in the HVAC&R office. Certification is included in the cost of the textbook. Repeatable to six credits. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

**HAC 111 Commercial Sheet Metal (3)**

**Prerequisite:** HAC 109 or consent of instructor

This course will cover advanced fitting layout, field measurements, advanced radial line developments and triangulation used in commercial construction of various duct fittings. Student will fabricate duct fittings for a particular project and will become responsible for their installations as well as installation of outdoor air and return air dampers for commercial units. Repeatable to six credits. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

**HAC 114 Basic Electricity and HVACR Controls (3)**

**Prerequisite:** None

A study of the electrical controls, electrical wiring diagrams and proper troubleshooting. Topics included are: electrical symbols, Ohms law, series and parallel circuits, power distribution, magnetism, switches, relays, AC current transformers, motor safety controls, capacitors and motors used in the HVACR field. Emphasis will be placed on reading and wiring up circuits from ladder wiring diagrams. The course will include the proper use of test instruments for troubleshooting. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

**HAC 115 Blueprint Reading for Heating and Air Conditioning (3)**

**Prerequisite:** None

A thorough examination of the components and elements that make up an architectural set of blueprints, including floor plans, foundation, electrical, heating, and plumbing, elevations, details and sections, plot plan, door, window, finish schedules, and general specifications. Residential and light commercial construction will be studied. Intended for the public and tradespersons interested in the general field of architecture. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

**HAC 116 Cost Estimating for Sheet Metal (3)**

**Prerequisite:** None

Students will learn basic procedures of estimating in all facets of metal fabrication which will include: ductwork, electrical wiring, piping, insulation, VAV equipment, temperature controls, HVAC units, air distribution equipment, heat and cooling equipment, air pollution equipment, heat recovery equipment, stamping, welding, machining, steel fabrication, forging, plastics finishing, brazing, plating and painting. This course will cover principles, practices, and procedures and provide a cost-effective, step-by-step method for cost estimating. Emphasis will be placed on pitfalls, problems, mistakes, inaccuracies that can occur in cost estimates. Basic concepts and steps that are required to develop man-hour and material based cost estimates will also be covered. Course is repeatable to six credits. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available
HAC 117 Architectural & Ornamental Sheet Metal (3) (2, 2)
Prerequisite: Grade of C or better in HAC 109 and HAC 111 or concurrent enrollment in HAC 111 or consent of instructor

This course will emphasize those sheet metal items and specialty items that cannot be purchased from a manufacturer or supplier. Students will learn how to do repair or replacement work on architectural gutter and roofing. Due to OSHA laws emphasizing health and safety, students will learn to fabricate metal specialty items such as guards, machine guards, chutes, hoppers and other specialty items. Students will have the opportunity to experiment with a variety of styles of ornamental sheet metal items fabricated from copper and ornamental iron works with major emphasis on design, contour and mass. Students will concentrate on either architectural or ornamental fabrication for their final class project. Course is repeatable to six credits. (1.2) Summer
Proficiency Credit Available
Pass/No Credit Not Available

HAC 118 Testing & Balancing HVAC Equipment (3) (2, 2)
Prerequisite: Grade of C or better in HAC 104 and HAC 208 or concurrent enrollment in HAC 208 or consent of instructor
Recommended: MTH 107

Students will study the most current procedures in testing, adjusting and balancing of air conditioning equipment. Topics which will be covered include use of instruments, preparing reports, balancing types of systems, equipment checkout, troubleshooting air problems, flow and pressure basics, balancing VAV systems, HVAC equipment, fans and drives, changing drives, grilles, diffuser and AK Areas will also be covered. Emphasis will be placed on balancing for energy conservation. Students will perform actual testing and balancing on HVAC equipment. Course is repeatable to six credits. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

HAC 119 Refrigerant Recovery Certification (.5) (5, 0)
Prerequisite: None

This course includes all information needed to prepare technicians to become certified to recover and contain refrigerant from both high and low pressure air conditioning and refrigeration equipment. This course is an EPA approved Refrigerant Certification course. Course is repeatable to two credits. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

HAC 205 Commercial Air Conditioning (3) (2, 2)
Prerequisite: HAC 102 and HAC 119 or consent of instructor

The study of DX cooling, open and hermetic centrifugal liquid chillers, ventilation theory and application will be covered. Emphasis will be placed on both the electrical and mechanical aspects of the field. Proper maintenance and start-up procedures of chillers will be covered. Instruction will cover psychrometrics, capacity control, zone control, capacity control and economizers. Actual electrical wiring on DX cooling and chillers will be studied. The use of new refrigerants and guidelines for retrofitting will be covered both in the lecture and lab. Theory and installation of pneumatics and electronic control systems will be covered. Repeatable to six credits. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

HAC 207 Commercial Refrigeration (3) (2, 2)
Prerequisite: HAC 102 and HAC 119 or consent of instructor

Study of high and low temperature applications and operations; mechanical and electrical components, service and repair, electrical circuitry, capacity control, and heat reclaim. Also covered are walk-in's, ice machines, and supermarket refrigeration equipment. Repeatable to six credits. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

HAC 208 Load Calculations and Duct System Design (4) (4, 0)
Prerequisite: HAC 102 or HAC 205 or consent of instructor

Commercial heating and cooling load calculations will be covered. The use of computer programs is also included. The student will also design a duct system for heating, cooling, and ventilation. Repeatable to eight credits. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

HAC 212 Pneumatic Controls (4) (3, 2)
Prerequisite: HAC 205 or consent of instructor

This course will cover pneumatic control theory strategies, control methods, and load control applications. Emphasis will be placed on types of control systems, controllers, pneumatic relays, damper and valve actuators, controller receivers humidity and pressure controllers and transducers. Repeatable to eight credits. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

HAC 220 HVACR National Certification (1) (1, 0)
Prerequisite: Grade of C or better in HAC 110 or HAC 208; or concurrent enrollment in HAC 110

This course will include pre-training for the Industrial Competency Exam (ICE). The ICE exam is sponsored by the Air Conditioning and Refrigeration Institute (ARI)/ Gas Appliance Manufacturer’s Association (GAMA). Three different exams are given at the end of the course which include the Residential Air Conditioning and Heating, Light Commercial, Air Conditioning and Heating, and Commercial Refrigeration. Course is repeatable to four credits. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

HAC 233 Special Topics in HVACR (.5) (.25, .50)
Prerequisite: None

Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) Adequate and available material on specific topic; 2) Comprehensive outlines for each topic; and 3) Course should be designed to increase skill and knowledge in the field of heating, air conditioning, and refrigeration. Repeatable to two credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

HAC 234 Special Topics in HVACR (1) (5, 1)
Prerequisite: None

Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) Adequate and available material on specific topic; 2) Comprehensive outlines for each topic; and 3) Course should be designed to increase skill and knowledge in the field of heating, air conditioning, and refrigeration. Repeatable to three credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

HAC 235 Special Topics in HVACR (2) (1, 2)
Prerequisite: None

Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) Adequate and available material on specific topic; 2) Comprehensive outline for each topic; and 3) Course should be designed to increase skill and knowledge in the field of heating, air conditioning, and refrigeration. Repeatable to four credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

HAC 102 and HAC 119 or consent of instructor

None

Grade of C or better in HAC 104 and HAC 208 or consent of instructor

Adequate and available material on specific topic; 2) Comprehensive outlines for each topic; and 3) Course should be designed to increase skill and knowledge in the field of heating, air conditioning, and refrigeration. Repeatable to two credits. (1.2) On Demand

Proficiency Credit Available
Pass/No Credit Not Available

HAC 208 Load Calculations and Duct System Design (4) (4, 0)
Prerequisite: HAC 102 or HAC 205 or consent of instructor

Commercial heating and cooling load calculations will be covered. The use of computer programs is also included. The student will also design a duct system for heating, cooling, and ventilation. Repeatable to eight credits. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

HAC 212 Pneumatic Controls (4) (3, 2)
Prerequisite: HAC 205 or consent of instructor

This course will cover pneumatic control theory strategies, control methods, and load control applications. Emphasis will be placed on types of control systems, controllers, pneumatic relays, damper and valve actuators, controller receivers humidity and pressure controllers and transducers. Repeatable to eight credits. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

HAC 220 HVACR National Certification (1) (1, 0)
Prerequisite: Grade of C or better in HAC 110 or HAC 208; or concurrent enrollment in HAC 110

This course will include pre-training for the Industrial Competency Exam (ICE). The ICE exam is sponsored by the Air Conditioning and Refrigeration Institute (ARI)/ Gas Appliance Manufacturer’s Association (GAMA). Three different exams are given at the end of the course which include the Residential Air Conditioning and Heating, Light Commercial, Air Conditioning and Heating, and Commercial Refrigeration. Course is repeatable to four credits. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

HAC 233 Special Topics in HVACR (.5) (.25, .50)
Prerequisite: None

Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) Adequate and available material on specific topic; 2) Comprehensive outlines for each topic; and 3) Course should be designed to increase skill and knowledge in the field of heating, air conditioning, and refrigeration. Repeatable to two credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

HAC 234 Special Topics in HVACR (1) (5, 1)
Prerequisite: None

Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) Adequate and available material on specific topic; 2) Comprehensive outlines for each topic; and 3) Course should be designed to increase skill and knowledge in the field of heating, air conditioning, and refrigeration. Repeatable to three credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

HAC 235 Special Topics in HVACR (2) (1, 2)
Prerequisite: None

Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) Adequate and available material on specific topic; 2) Comprehensive outline for each topic; and 3) Course should be designed to increase skill and knowledge in the field of heating, air conditioning, and refrigeration. Repeatable to four credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available
HAC 236 Special Topics in HVACR (3) (2, 2)  
**Prerequisite:** None  
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) Adequate and available material on specific topic; 2) Comprehensive outline for each topic; and 3) Course should be designed to increase skill and knowledge in the field of heating, air conditioning, and refrigeration. Repeatable to six credits. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

HIS 101, 102, 115, 116, 120, 121, 130, 131, 140, 141, 151, and 152 fulfill the social sciences requirement in the Associate in Arts, Associate in Science, Associate in Fine Arts, Associate in Engineering Science, Associate in Liberal Studies, and Associate of Applied Science Degrees.  


All HIS courses numbered 100 and above may be applied to the major field and elective requirement in the A.A. and A.S. Degrees.  

**ADVANCED HISTORY PLACEMENT**  
Based on the score received on the Advanced Placement (AP) Examination in American History, credit may be awarded for HIS 151 (AP, 3) or both HIS 151 and HIS 152 (AP, 4).  

Based on the score on the Advanced Placement (AP) Examination in European History, credit may be granted for HIS 101 (AP, 3) or both HIS 101 and HIS 102 (AP, 4).  

**HIS 100 Topics in History (Variable Credit 1-3) (1-3, 0)**  
**Prerequisite:** None  
Designed to introduce the student to the complexities and challenges involved in a disciplined study of the past. Each topical section will concentrate on an intensive study and investigation of a particular topic in history. Repeatable to a total of six credits. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

**HIS 101 History of Western Civilization I (3) (3, 0)**  
**Prerequisite:** None  
Study of the historical origins and development of western ideas, values and institutions from ancient times to the Renaissance. Examines selected ideas and aspects of cultural evolution which have most directly influenced the present. (1.1) Fall, Spring  
Fulfills the ECC/IAI General Education/Social Sciences requirement.  
IAI Course Number: S2 902  
Proficiency Credit Available  
Pass/No Credit Not Available

**HIS 102 History of Western Civilization II (3) (3, 0)**  
**Prerequisite:** None  
A history of Western Civilization from the Renaissance to the Contemporary Age. The course will concern itself with the political, social, economic, cultural and artistic developments of the period. (1.1) Fall, Spring  
Fulfills the ECC/IAI General Education/Social Sciences requirement.  
IAI Course Number: S2 903  
Proficiency Credit Available  
Pass/No Credit Not Available

**HIS 115 History of World Civilizations I (3) (3, 0)**  
**Prerequisite:** None  
This course examines the history of various civilizations throughout the globe from the earliest examples in Asia and Africa to the European Renaissance during the early 16th century. (1.1) Fall, Spring, Summer  
Fulfills the ECC/IAI General Education/Social Sciences requirement.  
IAI Course Number: S2 912N  
Proficiency Credit Not Available  
Pass/No Credit Not Available

**HIS 116 History of World Civilizations II (3) (3, 0)**  
**Prerequisite:** None  
Starting with an assessment of the European Renaissance in the 15th century and increasing interaction among societies in various regions of the world, this course examines the ongoing development of major civilizations throughout the globe to modern times. (1.1) Fall, Spring, Summer  
Fulfills the ECC/IAI General Education/Social Sciences requirement.  
IAI Course Number: S2 913N  
Proficiency Credit Not Available  
Pass/No Credit Not Available

**HIS 118 Foundations of Civilization (3) (3, 0)**  
**Prerequisite:** None  
The development of world civilization from the earliest peoples to modern global interdependence among peoples and nations. Emphasis is on the relationship between present and past and on the recurring themes that connect past, present, and future. Examines landmark documents and artifacts that have shaped human events and cultures. (1.1) Fall, Spring  
Fulfills the ECC/IAI General Education/Humanities requirement.  
IAI Course Number: H2 900  
Proficiency Credit Not Available  
Pass/No Credit Available

**HIS 120 History of the Non-Western World I (3) (3, 0)**  
**Prerequisite:** None  
This course examines the political, social, intellectual, cultural and economic history of non-western cultures in Asia, Africa and Latin America from the origins of civilization to the 16th century. (1.1) Fall, Spring, Summer  
Fulfills the ECC/IAI General Education/Social Sciences requirement.  
IAI Course Number: S2 904N  
Proficiency Credit Not Available  
Pass/No Credit Not Available

**HIS 121 History of the Non-Western World II (3) (3, 0)**  
**Prerequisite:** None  
This course examines the political, social, intellectual, cultural and economic history of non-western cultures of Asia, Africa and Latin America. A particular focus is placed on the origins of contemporary non-western societies and the varied responses and adaptations to modernity and Western influences. (1.1) Fall, Spring, Summer  
Fulfills the ECC/IAI General Education/Social Sciences requirement.  
IAI Course Number: S2 905N  
Proficiency Credit Not Available  
Pass/No Credit Not Available

**HIS 130 History of Latin America I (3) (3, 0)**  
**Prerequisite:** None  
This course examines the political, economic, cultural, social, religious and intellectual history of the principle Latin American regions from pre-Columbian times and centuries of European hegemony through the early years of independence. (1.1) Fall, Spring, Summer  
Fulfills the ECC/IAI General Education/Social Sciences requirement.  
IAI Course Number: S2 910N  
Proficiency Credit Not Available  
Pass/No Credit Not Available
HIS 131 History of Latin America II (3)  
**Prerequisite:** None  
This course examines the political, economic, cultural, social, religious and intellectual history of the principle Latin American states and their people from the early years of independence to modern times. (1.1) Fall, Spring, Summer  
Fulfills the ECC/IAI General Education/Social Sciences requirement.  
IAI Course Number: S2 911N  
Proficiency Credit Not Available  
Pass/No Credit Not Available

HIS 140 History of Asia and the Pacific I (3)  
**Prerequisite:** None  
This course explores some of the major historical issues which have molded Asian history from ancient times to the early modern period. Rather than dealing solely with names and dates, students are asked to consider such issues as why Indian and Chinese civilizations followed such seemingly different paths as well as how the relative geographic isolation of Japan shaped its society. (1.1) Fall, Spring, Summer  
Fulfills the ECC/IAI General Education/Social Sciences requirement.  
IAI Course Number: S2 908N  
Proficiency Credit Not Available  
Pass/No Credit Not Available

HIS 141 History of Asia and the Pacific II (3)  
**Prerequisite:** None  
This course explores some of the major historical issues which have molded Asian history from early modern period to the present. Rather than dealing solely with names and dates, students are asked to consider such issues as why Chinese and Japanese civilizations took such seemingly different paths to modernization as well as how interaction with the West, industrialization and the global economy changed Asian societies. (1.1) Fall, Spring, Summer  
Fulfills the ECC/IAI General Education/Social Sciences requirement.  
IAI Course Number: S2 909N  
Proficiency Credit Not Available  
Pass/No Credit Not Available

HIS 151 United States History to 1870 (3)  
**Prerequisite:** None  
Development of the United States from the first explorations through the Civil War to the eve of its emergence as a world power. Emphasis upon the concepts and institutions which resulted. (1.1) Fall, Spring, Summer  
Fulfills the ECC/IAI General Education/Social Sciences requirement.  
IAI Course Number: S2 900  
Proficiency Credit Available  
Pass/No Credit Not Available

HIS 152 United States History Since 1865 (3)  
**Prerequisite:** None  
Development of the United States from the end of the Civil War to the present with special emphasis upon the factors which made it a world power together with the challenges arising therefrom. (1.1) Fall, Spring, Summer  
Fulfills the ECC/IAI General Education/Social Sciences requirement.  
IAI Course Number: S2 901  
Proficiency Credit Available  
Pass/No Credit Not Available

HIS 160 American Civilization (3)  
**Prerequisite:** None  
This course is concerned with the history of major developments in the United States of America from the colonial period to the present. Students will be asked to assess the ways in which Americans have extended the Western tradition, and they also will be expected to analyze the distinctive cultural contributions of the United States. (1.1) Fall, Spring  
Fulfills the ECC/IAI General Education/Humanities requirement.  
IAI Course Number: H2 904  
Proficiency Credit Not Available  
Pass/No Credit Not Available

HIS 201 Modern European History (3)  
**Prerequisite:** None  
This course of study analyzes developments in European and global history from the French Revolution to the contemporary age. Some of the themes which will be covered, therefore, include: the Industrial Revolution, Nationalism, Liberalism, Socialism, Anarchism, Communism, Imperialism, Fascism, the World Wars and the Cold War and its aftermath. Furthermore, close attention will be paid to the unification of Europe and the environmental movement as well as to issues of ethnicity, race, religion and gender. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

HIS 219 Honors Seminar in History (1)  
**Prerequisite:** None  
**Recommended:** Honors status  
A seminar which complements a particular history course designed to provide the opportunity for study of the course material in greater depth, more sophisticated inquiry or methodology and/or more penetrating research. The student must qualify for honors status. Repeatable to three credits. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available

HIS 297 Independent Study in History (Variable Credit 1-3)  
**Prerequisite:** Consent of instructor  
The student is to have identified a special study project and request advice and direction from the history faculty. The program will be carried out under the direction of one or more faculty members who will modify the proposal in accordance with departmental requirements for the credit involved. Repeatable to 12 credits. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available

HOSPITALITY MANAGEMENT  
(See Culinary Management)

HOTEL MANAGEMENT OPERATIONS  
All HTM courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

HTM 100 Tourism and the Hotel Industry (3)  
**Prerequisite:** None  
This course takes a cross-disciplinary approach to examine the many facets of tourism. The social science perspective provides students with the kind of practical knowledge that can effectively be applied to the hospitality industry. The course also provides advanced information that can serve as a bridge to further analysis or study. (1.2) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Not Available

HTM 103 Front Office Procedures (3)  
**Prerequisite:** HTM 100 or concurrent enrollment in HTM 100  
This course presents a systematic approach to front office procedures by detailing the flow of business through a hotel, from the reservations process to check-out and settlement. The course also examines the various elements of effective front office management, paying particular attention to the planning and evaluation of front office operations and to human resources management. Front office procedures and management are placed within the context of the overall operation of a hotel. (1.2) Fall  
Proficiency Credit Not Available  
Pass/No Credit Not Available
## COURSE DESCRIPTIONS

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Credits</th>
<th>Term(s)</th>
<th>Prerequisites</th>
<th>Co-requisites</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTM 104</td>
<td>Housekeeping Management</td>
<td>3</td>
<td>Spring</td>
<td>None</td>
<td>Proficiency Credit Not Available Pass/No Credit Not Available</td>
</tr>
<tr>
<td>HTM 109</td>
<td>Hotel Computer Systems</td>
<td>4</td>
<td>Fall, Summer</td>
<td>Grade of C or better in OTS 100 or concurrent enrollment in OTS 100 or proficiency in OTS 100</td>
<td>Proficiency Credit Not Available Pass/No Credit Not Available</td>
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<tr>
<td>HTM 137</td>
<td>Travel Geography/Business &amp; Industry</td>
<td>3</td>
<td>Spring</td>
<td>None</td>
<td>Proficiency Credit Not Available Pass/No Credit Not Available</td>
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<tr>
<td>HTM 203</td>
<td>Travel Geography-Europe &amp; N. Africa</td>
<td>3</td>
<td>Fall, Summer</td>
<td>None</td>
<td>Proficiency Credit Not Available Pass/No Credit Not Available</td>
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<tr>
<td>HTM 205</td>
<td>Hospitality Law</td>
<td>4</td>
<td>Spring</td>
<td>None</td>
<td>Proficiency Credit Not Available Pass/No Credit Not Available</td>
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<tr>
<td>HTM 210</td>
<td>Hotel Internship: Rooms Division</td>
<td>4</td>
<td>Fall, Summer</td>
<td>Grade of C or better in BUS 101, FOD 207, HTM 100, HTM 103, HTM 104, HTM 109 and HTM 205 or consent of instructor</td>
<td>Proficiency Credit Not Available Pass/No Credit Not Available</td>
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<tr>
<td>HTM 211</td>
<td>Hotel Internship: Management</td>
<td>4</td>
<td>Fall, Summer</td>
<td>Grade of C or better in FOD 207, HTM 100, HTM 103, HTM 104, HTM 109 and HTM 205 or consent of instructor</td>
<td>Proficiency Credit Not Available Pass/No Credit Not Available</td>
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<tr>
<td>HTM 217</td>
<td>Meeting and Convention Planning</td>
<td>4</td>
<td>Fall</td>
<td>None</td>
<td>Proficiency Credit Not Available Pass/No Credit Not Available</td>
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<tr>
<td>HTM 230</td>
<td>Travel Product Marketing</td>
<td>3</td>
<td>Fall, Summer</td>
<td>None</td>
<td>Proficiency Credit Available Pass/No Credit Not Available</td>
</tr>
</tbody>
</table>
HUMAN SERVICES

All HUS, ECE, BEH, GER, MEC, MEN, PRE, SUB, and FMV courses numbered 100 and above may be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

HUMAN SERVICES-CORE COURSES

HUS 101 Introduction to Human Services (3) (3, 0)  
Prerequisite: None  
This course will introduce the students to basic skills common to all human services program delivery. It will include dealing with the public, assessment of needs, report writing, networking, basic helping skills, and other core concepts. (1.2) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

HUS 102 Principles & Practices of Human Services (3) (3, 0)  
Prerequisite: None  
This course will introduce the students to basic skills common to all human services program delivery. It will include dealing with the public, assessment of needs, report writing, networking, basic helping skills, and other core concepts. (1.2) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

HUS 110 Issues in Human Services (3) (3, 0)  
Prerequisite: None  
The course covers advocacy in human services as it represents the interests of all individuals, children, youth, adults, and the elderly. It is concerned with what is done with, for, and to them by individuals and society in general. The course will be concerned not only with individual rights in society but within the legal systems, social services systems, and in specific human relations. (1.2) Fall, Summer  
Proficiency Credit Available  
Pass/No Credit Not Available

HUS 201 Field Experience I and Seminar (4) (2, 10)  
Prerequisite: Consent of instructor  
In-residence training is a supervised opportunity for the student to have first-hand experience in an institutional setting that meets his/her area of interest. In this setting, it is expected that the student will develop proficiency and display the skills required to perform adequately on-the-job. (1.2) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Not Available

HUS 202 Field Experience II & Seminar (4) (2, 10)  
Prerequisite: C or better in HUS 201  
In-residence training is a supervised opportunity for the student to have first-hand experience in an institutional setting that meets his/her area of interest. In this setting, it is expected that the student will develop proficiency and display the skills required to perform adequately on-the-job. (1.2) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Not Available

HUS 205 Introduction to Group Processes (3) (3, 0)  
Prerequisite: None  
This course is designed to meet the needs of the student who will help others on a group basis. The major focus is on increasing communication at all age levels, interpersonal knowledge and leadership skills in an atmosphere that allows students to study themselves and their relationships with other people. The course is taught using the laboratory approach which gives students the opportunity to experience the small group processes and theory being studied. Students are encouraged to examine their own value base, self-concept and interpersonal style, and the implication that these have in working with adults as well as children. (1.1) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available

NOTE: This course is offered concurrently as EDN 205 and SUB 205. The student must decide whether to earn credits in Human Services (HUS), Education (EDN) or Substance Abuse Counseling (SUB) prior to enrolling.

HUS courses continue on page 137.

HUMAN SERVICES-EARLY CHILDHOOD EDUCATION

ECE 100 Health & Nutrition for Children (3) (3, 0)  
Prerequisite: None  
Examines the principles and practices of health, safety and nutrition for the young child. Considers the basics of human structures and functions and related health concerns. Guidelines for providing safe care and protection are included. Nutrition information is studied and emphasis is on its significance for young children. Practical application of menu planning and meal management is experienced. (1.2) Fall, On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 102 Foundations of Early Childhood Education (3) (3, 0)  
Prerequisite: None  
Overview of history, philosophy and programs in early childhood education. Examines career opportunities as well as necessary skills, attitudes and professional preparation for working with children. Includes self-examination of abilities for interacting with children and their families. Observation of a variety of child development programs is required, and program interpretation is discussed. (1.2) Fall  
Proficiency Credit Not Available  
Pass/No Credit Not Available

ECE 111 Activities for the Exceptional Child (2) (2, 0)  
Prerequisite: None  
This course will introduce the student to materials and methods designed for conducting activities for the child with special needs. In addition to specific activities, the course will include discussion of current philosophical and medical position on various disabilities. Consideration will be given to the methods of selecting, adapting and leading activities for children with various limitations. The course will explore the factors involved with children who must deal with physical disabilities, mental retardation, communication problems, learning disabilities and emotional disturbances. (1.1) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 114 Infant-Toddler Care (3) (3, 0)  
Prerequisite: None  
The patterns of growth and development in the child from birth to 3 years will be studied. The specific needs of infants and toddlers in various child care settings will be examined, with current research being considered. Students will have the opportunity to develop skills in managing a safe environment while providing stimulating activities at appropriate levels. Experience in ECC’s infant-toddler room is required. (1.2) Fall  
Proficiency Credit Not Available  
Pass/No Credit Not Available
ECE 115 Pre-School Activities and Programming (3)  
Prerequisite: None  
Introduces activities and programming which are consistent with developmentally appropriate practices for the preschool child. Emphasis is on the significance of play and creative implementation of a wide variety of activity opportunities. Teaching skills, techniques and classroom management strategies are explored. Curriculum and program structure is designed to provide potential for optimal growth and development of the young child. (1.2) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 116 School-Age Activities and Programming (3)  
Prerequisite: None  
Introduces developmentally appropriate practices for group care of school-age children. Provides opportunities to design, develop and implement effective activity programs. Emphasis is placed on classroom (group) and individual behavior management. Resources, materials and adaptations are examined. Age specific teaching techniques, methods and strategies are explored. (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 120 Music & Movement for the Young Child (3)  
Prerequisite: None  
Introduces the relationship of music and movement to the development of the young child. Analyzes methods and materials appropriate for integrating music and movement into the early childhood curriculum. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 121 Math & Science for the Young Child (3)  
Prerequisite: None  
Introduction to basic concepts in math and science for young children. Emphasis on the learning process as well as the acquisition of information. Examine methods of learning through explanation and discovery. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 122 Creative Art Activities/Young Child (3)  
Prerequisite: None  
Introduction of materials and methods suitable for presenting art experiences for the young child. Focus on expressive and experimental opportunities available through art media. Examine the place of art activities in the curriculum. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 123 Language Development for Young Child (3)  
Prerequisite: None  
The main emphasis will be on the language development in the young child. Includes methods and materials for encouraging language growth. Content will include techniques in such areas as story telling, dramatic play, puppetry. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 124 Curriculum Planning/Young Child (3)  
Prerequisite: None  
Introduction of principles of planning curriculum and programs for the young child. Developmental levels of children related to activity and programming. Explore goals of curriculum in early childhood education. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 174 Development of Young Children (3)  
Prerequisite: None  
The study of children who do not follow normal or average patterns of development will be stressed. Each area will be compared with normal growth and development. Emphasis is on normal development, but individual differences and deviations are addressed. Research, theory and practical application is related to working with children. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 150 Child Guidance Practices I (3)  
Prerequisite: None  
Students will study the basic theory and practice for guiding toddlers’ and children’s behavior. The emphasis will be on helping students utilize preventive techniques to eliminate and minimize discipline situations. Positive methods in helping children develop positive self-concepts will be stressed. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 154 Parenting the Young Child (3)  
Prerequisite: None  
Students will study ways of dealing with young children that lead to wholesome and desired behavior and eliminate undesired behavior. Emphasis will also be placed on dealing with children to minimize friction and help children to develop wholesome self-concepts. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 147 Development of Young Children (3)  
Prerequisite: None  
Introduces developmentally appropriate practices for group care of school-age children. Provides opportunities to design, develop and implement effective activity programs. Emphasis is placed on classroom (group) and individual behavior management. Resources, materials and adaptations are examined. Age specific teaching techniques, methods and strategies are explored. (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

ECE 204 The Exceptional Child (3)  
Prerequisite: PSY 100 or consent of instructor  
The study of children who do not follow normal or average patterns of development will be stressed. Each area will be compared with normal growth and development. Emphasis is on the principles, techniques and services which assist each child to develop his/her fullest potential. Methods of identification will also be discussed. (1.1) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available

NOTE: This course is offered concurrently as EDN 204. The student must decide whether to earn credits in Early Childhood Education (ECE) or Education (EDN) prior to enrolling.

ECE 205 Behavior Management (3)  
Prerequisite: None  
The student will be introduced to the basic techniques of behavior management used in the field today. Application to the early, middle and secondary years will be stressed. Moral and ethical issues will be discussed. (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Available

NOTE: This course is offered concurrently as GER 205 and MEN 205. The student must decide whether to earn credits in Early Childhood Education (ECE) or Mental Health (MEN) prior to enrolling.

ECE 206 Group Leadership Skills (3)  
Prerequisite: HUS 205 or consent of instructor  
This course is designed to meet the needs of the student who will help others on a group basis. It is a second level course which builds upon the knowledge, skills and issues considered in Introduction to Group Processes. The emphasis is on developing the skills that are necessary where a person is responsible to organize, structure, lead, and evaluate groups in a daycare or agency setting. The goal is to increase skill competency and strengthen the ability to be relaxed in a group leadership role. (1.1) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

NOTE: This course is offered concurrently as GER 206 and MEN 206. The student must decide whether to earn credits in Early Childhood Education (ECE), Gerontology Mental Health (GER), or Mental Health (MEN) prior to enrolling.
ECE 210 Home Day Care Management (3) (3, 0)
Prerequisite: None
Presents basic information and guidelines related to the various components involved in providing direct infant and child care services in a family home setting. Current issues will be addressed and the needs of providers will be taken into consideration. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

ECE 215 Day Care Administration (3) (3, 0)
Prerequisite: None
This is an advanced level course designed to equip students with an understanding of issues and skills related to effective administration of day care facilities which care for young children. The student will learn basic organizational skills and management techniques which will enhance the student's understanding and ability in the area of administration. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

ECE 216 Dealing with Death (3) (3, 0)
Prerequisite: None
This course is designed to help the student gain some insight and understanding of the psychological applications of death in our society and how to care for the dying person and all members of the grieving family. Levels of grief experienced by children at all ages will be considered. (1.1) Spring
Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as GER 216 and MEN 216. The student must decide whether to earn credits in Early Childhood Education (ECE), Gerontology Mental Health (GER) or Mental Health (MEN) prior to enrolling.

ECE 220 Child, Family & Community Relations (3) (3, 0)
Prerequisite: None
Focus on the understanding of interrelationships of family, community social groups and their effect upon the child at all ages. Specific topics in family and parent education, family dynamics and community resources. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

ECE 225 Child, Family & Community Relations I (3) (3, 0)
Prerequisite: None
Focus on the understanding of interrelationships of family, community social groups and their effect upon the child at all ages. Specific topics in family and parent education, family dynamics and community resources. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

MONTESSORI

MEC 101 Mont. History and Philosophy (3) (3, 0)
Prerequisite: Must concurrently enroll in MEC 102 and MEC 103 and MEC 104 and MEC 105; Admission to the MECA infant/toddler teacher education
Gives a general introduction to Montessori's principles and ideas, her view of the child, and the child's place in society. Includes an overview of the history of education and parallels and relationships between Montessori's contributions and those of other educators who influenced her. Major concepts of the approach, such as the Absorbent Mind, Sensitive Periods, Logical-mathematical mind, spiritual and moral development of the child, will be discussed. An emphasis will be placed on how these ideas relate to current standards of developmentally appropriate classroom practice for infants and toddlers. (1.2) Summer
Proficiency Credit Not Available
Pass/No Credit Available

MEC 102 Mont. Developmental Theory (3) (3, 0)
Prerequisite: Must concurrently enroll in MEC 101 and MEC 103 and MEC 104 and MEC 105; Admission to the MECA infant/toddler teacher education
Examines Montessori theory and practice in relation to the field of child development and the major contemporary child development theorists. Social, emotional, psychological, cognitive and physiological aspects of child development will be covered, from conception to the age of three years. Emphasis will be placed on normal development, but individual differences are addressed. Focus will be placed on current research. (1.2) Summer
Proficiency Credit Not Available
Pass/No Credit Available

MEC 103 Mont. Activities and Programs (3) (3, 0)
Prerequisite: Must concurrently enroll in MEC 101 and MEC 102 and MEC 104 and MEC 105; Admission to the MECA infant/toddler teacher education
Includes an overview of environmental design and aesthetics, effective age groupings, group size and child-adult ratios for the variety of Montessori programs available for children under three years of age. Provides an in-depth analysis of materials and activities to meet the needs of the Sensitive periods: Language, Movement, Development of the Senses, Independence, Order, etc. Issues of health and safety and state licensing requirements will be discussed. (1.2) Summer
Proficiency Credit Not Available
Pass/No Credit Available

MEC 104 Mont. Child, Family & Community (3) (3, 0)
Prerequisite: Must concurrently enroll in MEC 101 and MEC 102 and MEC 103 and MEC 105; Admission to the MECA infant/toddler teacher education
Presents all aspects of the parent-child-caregiver relationship. Emphasis is on supporting the role of the parent as primary educator of the child. Includes an overview of the psychology of parenthood, child-rearing practices, cultivating parent participation in programs, community and professional resources. (1.2) Summer
Proficiency Credit Not Available
Pass/No Credit Available

MEC 105 Montessori Program Leadership (3) (3, 0)
Prerequisite: Must concurrently enroll in MEC 101 and MEC 102 and MEC 103 and MEC 104; Admission to the MECA infant/toddler teacher education
Introduces important aspects of classroom management and program administration. Provides an overview and rationale for scheduling of the program day for the child and related staff scheduling and supervision issues. Includes discussion of assessment and record keeping, professional development, reflective practice, and program ethics. (1.2) Summer
Proficiency Credit Not Available
Pass/No Credit Available

MEC 111 Mont. History, Philosophy & Pedagogy (3) (3, 0)
Prerequisite: Must concurrently enroll in MEC 112 and MEC 113 and MEC 114 and MEC 115; Admission to the MECA early childhood teacher education
Gives a general introduction to Montessori's principles and ideas, her view of the child, and the child's place in society. Includes an overview of the history of education and parallels and relationships between Montessori's contributions and those of other educators who influenced her. Major concepts of the approach, such as the Absorbent Mind, Sensitive Periods, Logical-mathematical mind, spiritual and moral development of the child, will be discussed. An emphasis will be placed on how these ideas relate to current standards of developmentally appropriate classroom practice for early childhood. (1.2) Summer
Proficiency Credit Not Available
Pass/No Credit Available
COURSE DESCRIPTIONS

MEC 112 Mont. Dev. Theory, Early Childhood (3) (3, 0)
Prerequisite: Must concurrently enroll in MEC 111 and MEC 113 and MEC 114 and MEC 115; Admission to the MECA early childhood teacher education

Examines Montessori theory and practice in relation to the field of child development and the major contemporary child development theorists. Social, emotional, psychological, cognitive, and physiological aspects of child development will be covered for the early childhood years with a focus on the span from two and a half years to age six. Emphasis will be placed on normal development, but individual differences will also be addressed. Focus will be placed on current research. (1.2) Summer

Proficiency Credit Not Available
Pass/No Credit Available

MEC 113 Montessori Practical Life (3) (3, 0)
Prerequisite: Must concurrently enroll in MEC 111 and MEC 112 and MEC 114 and MEC 115; Admission to the MECA early childhood teacher education

Presents an overview and rationale for the Montessori Practical Life and Sensorimotor activities and materials as the foundation for the Montessori classroom approach. Introduces the characteristics and qualities of materials and the methodology for their presentation. Includes an overview of sensorimotor development from birth to age six and discussion of the concept of “synthetic” movement. (1.2) Summer

Proficiency Credit Not Available
Pass/No Credit Available

MEC 114 Montessori Language Arts (3) (3, 0)
Prerequisite: Must concurrently enroll in MEC 111 and MEC 112 and MEC 113 and MEC 115; Admission to the MECA early childhood teacher education

Provides an overview of language development from birth to age six. Emphasis is placed on classroom techniques for developing oral and graphic language for children from two and a half years to six, including introducing sounds and building phonetic words, reading development, introducing writing and penmanship, and exploring the function of words. Includes discussion of selecting children’s books, introduction of a second language, and art appreciation as an extension of language curriculum. (1.2) Summer

Proficiency Credit Not Available
Pass/No Credit Available

MEC 115 Montessori Mathematics (3) (3, 0)
Prerequisite: Must concurrently enroll in MEC 111 and MEC 112 and MEC 113 and MEC 114; Admission to the MECA early childhood teacher education

Presents an overview of how children develop numerical understanding and the philosophy and rationale for the Montessori mathematics materials for children two and a half to six years. Emphasis is placed on techniques and activities for introduction to numeration, the decimal system, operations with the decimal system, linear counting, memorization of facts, and fractions. (1.2) Summer

Proficiency Credit Not Available
Pass/No Credit Available

HUMAN SERVICES-FAMILY VIOLENCE COUNSELING

FMV 101 Introduction to Family Violence (3) (3, 0)
Prerequisite: None

This course will examine the issues of family violence from the various perspectives of children, spouses, and the elderly. The course will focus on the dynamics, signs and symptoms, prevention and possible interventions for each age group. Students will examine physical abuse and neglect, sexual abuse and harassment, emotional abuse and exploitation. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

FMV 110 Family Violence Regulations (3) (3, 0)
Prerequisite: None

This course will familiarize the student with those rules and regulations that govern the treatment, early intervention, and prevention of family violence. Included will be a study of the Laws, Standards, and ethics involved in practice in the field. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

FMV 150 Violence Against Women (3) (3, 0)
Prerequisite: None

This course will be an overview of the problem of domestic violence toward women. The student will look at the history of the problem, current statistics, and societal attitudes. The course will examine the roles of men and women as well as the impact on children. The cycle of violence and power and control issues will be explored. The course will also explore sexual assault dynamics, treatment, and response as well as advocacy for the victim. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

HUMAN SERVICES-GERONTOLOGY

BEH 120 Social Aspects of Aging (3) (3, 0)
Prerequisite: None

The place of older people in society will be explored, including attitudes toward aging, myths about aging, and social characteristics of older people. Special needs of elderly person’s family, economic, legal, housing, transportation, and health care settings, community sources and community resources available for meeting these needs will be examined. (1.1) Spring

Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is the transfer equivalent of and offered currently as GER 113. The student must decide whether to earn credits in (BEH) or Gerontology Mental Health (GER) prior to enrolling.

GER 102 Aging & Health (3) (3, 0)
Prerequisite: None

This course will examine current theories of the aging process, normal changes accompanying aging and common chronic health problems of older people. Emphasis will be on ways of helping older people maintain good health and assisting physically impaired people to function at their optimal level. Basic nutrition for the later years will also be discussed. (1.2) Fall

Proficiency Credit Available
Pass/No Credit Not Available

GER 103 Programming for Independent Living (3) (3, 0)
Prerequisite: None

Recommended: HUS 101

The purpose of this course is to give students a basic knowledge of the techniques of socialization and remotivation. Emphasis will be placed on developing techniques to meet special needs. The course will deal with cognitive understanding and skill development. (1.2) On Demand

Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as MEN 103. The student must decide whether to earn credits in Gerontology Mental Health (GER) or Mental Health (MEN) prior to enrolling.

HUMAN SERVICES-MENTAL HEALTH

None

FMV 101 Introduction to Family Violence (3) (3, 0)
Prerequisite: None

This course will examine the issues of family violence from the various perspectives of children, spouses, and the elderly. The course will focus on the dynamics, signs and symptoms, prevention and possible interventions for each age group. Students will examine physical abuse and neglect, sexual abuse and harassment, emotional abuse and exploitation. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available
GER 110 Issues in Human Services (3) (3, 0)
Prerequisite: None
This course covers advocacy in human services as it represents the interests of all individuals, children, youth, adults, and the elderly. It is concerned with what is done with, for, and to them by individuals and society in general. The course will be concerned not only with individual rights in society, but within legal systems, social services systems, and in specific human relations. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as HUS 110. The student must decide whether to earn credits in Gerontology Mental Health (GER) or Human Services (HUS) prior to enrolling.

GER 113 Social Aspects of Aging (3) (3, 0)
Prerequisite: None
The place of older people in society will be explored, including attitudes toward aging, myths about aging, and social characteristics of older people. Special needs of elderly person's family, economic, legal, housing, transportation, and health care settings, community sources and community resources available for meeting these needs will be examined. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as BEH 120. The student must decide whether to earn credits in Gerontology Mental Health (GER) or (BEH) prior to enrolling.

GER 205 Behavior Management (3) (3, 0)
Prerequisite: None
The student will be introduced to the basic techniques of behavior management used in the field today. Application to the early, middle and secondary years will be stressed. Moral and ethical issues will be discussed. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as ECE 205 and MEN 205. The student must decide whether to earn credits in Gerontology Mental Health (GER), Early Childhood Education (ECE), or Mental Health (MEN) prior to enrolling.

GER 206 Group Leadership Skills (3) (3, 0)
Prerequisite: HUS 205 or consent of instructor
This course is designed to meet the needs of the student who will help others on a group basis. It is a second level course which builds upon the knowledge, skills and issues considered in Introduction to Group Processes. The emphasis is on developing the skills that are necessary where a person is responsible to organize, structure, lead, and evaluate groups in a daycare or agency setting. The goal is to increase skill competency and strengthen the ability to be relaxed in a group leadership role. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as ECE 206 and MEN 206. The student must decide whether to earn credits in Gerontology Mental Health (GER), Early Childhood Education (ECE), or Mental Health (MEN) prior to enrolling.

GER 213 Crisis Intervention (3) (3, 0)
Prerequisite: None
The purpose of this course is to give students a working knowledge of how to deal with persons in crisis. Special application of the concepts will be stressed. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as MEN 213 and SUB 213. The student must decide whether to earn credits in Gerontology Mental Health (GER), Mental Health (MEN) or Substance Abuse Counseling (SUB) prior to enrolling.

GER 216 Dealing with Death (3) (3, 0)
Prerequisite: None
This course is designed to help the student gain some insight and understanding of the psychological applications of death in our society and how to care for the dying person and all members of the grieving family. Levels of grief experienced by children at all ages will be considered. (1.1) Spring
Proficiency Credit Available
Pass/No Credit Available

NOTE: This course is offered concurrently as ECE 216 and MEN 216. The student must decide whether to earn credits in Gerontology Mental Health (GER), Early Childhood Education (ECE) or Mental Health (MEN) prior to enrolling.

GER 220 Mental Health: Aspects of Aging (3) (3, 0)
Prerequisite: None
Psychological processes in the later years will be examined. Special emphasis will be on recognizing and preventing mental health problems in reference to loss, functional disorders, as well as organic brain syndrome. Practical helping skills for dealing with older persons and their families will be examined and practiced. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Available

HUMAN SERVICES

HUS 101 & HUS 102 See Human Services Core Courses p. 133.

HUS 104 Peer Helper Training (1.5) (1.5, 0)
Prerequisite: None
Project STEP (Students Teaching and Encouraging Prevention) will train students to be Peer Helpers. The peer helper will help students clarify their attitude towards drugs and alcohol and refer students to sources of help when this is necessary. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Available

NOTE: This course is offered concurrently as GSD 104. The student must decide whether to earn credits in Human Services (HUS) or General Student Development (GSD) prior to enrolling.

HUS 110 See Human Services Core Courses p. 133.

HUS 125 Special Populations (3) (3, 0)
Prerequisite: None
This course deals with the problems most often encountered when counseling substance abuse clients and their families. This includes those individuals that have been affected by substance abusers as well as abusers themselves. Self awareness will be stressed. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

NOTE: This course is offered concurrently as MEN 125 and SUB 125. The student must decide whether to earn credits in Human Services (HUS), Mental Health (MEN) or Substance Abuse Counseling (SUB) prior to enrolling.

HUS 201, 202 & 205 See Human Services Core Courses p. 133.

HUS 253 Topics in Human Services (Variable Credit 1-3) (1-3, 0)
Prerequisite: None
Designed to satisfy the specific needs or interests of students and human services facilities. Sample topics include: theory and practice in behavior theory and community services in aging. Repeatable to a total of 12 credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available
HUMAN SERVICES—MENTAL HEALTH GENERALIST

MEN 125 Special Populations (3) (3, 0)  
**Prerequisite:** None  
This course deals with the problems most often encountered when counseling substance abuse clients and their families. This includes those individuals that have been affected by substance abusers as well as abusers themselves. Self awareness will be stressed. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available  

NOTE: This course is offered concurrently as HUS 125 and SUB 125. The student must decide whether to earn credits in Mental Health (MEN), Human Services (HUS), or Substance Abuse Counseling (SUB) prior to enrolling.

MEN 205 Behavior Management (3) (3, 0)  
**Prerequisite:** None  
The student will be introduced to the basic techniques of behavioral management used in the field today. Application to the early, middle and secondary years will be stressed. Moral and ethical issues will be discussed. (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available  

NOTE: This course is offered concurrently as ECE 205 and GER 205. The student must decide whether to earn credits in Mental Health (MEN), Early Childhood Education (ECE) or Gerontology Mental Health (GER) prior to enrolling.

MEN 206 Group Leadership Skills (3) (3, 0)  
**Prerequisite:** HUS 205 or consent of instructor  
This course is designed to meet the needs of the student who will help others on a group basis. It is a second level course which builds upon the knowledge, skills and issues considered in Introduction to Group Processes. The emphasis is on developing the skills that are necessary where a person is responsible to organize, structure, lead, and evaluate groups in a daycare or agency setting. The goal is to increase skill competency and strengthen the ability to be relaxed in a group leadership role. (1.1) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available  

NOTE: This course is offered concurrently as ECE 206 and GER 206. The student must decide whether to earn credits in Mental Health (MEN), Early Childhood Education (ECE) or Gerontology Mental Health (GER) prior to enrolling.

MEN 210 Working with Families (3) (3, 0)  
**Prerequisite:** HUS 102 or consent of instructor  
This course will help students understand and work effectively with families of human services clients. It will focus on family systems throughout the life span and the impact of special problems upon the family. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available  

MEN 211 Behavior Problems (3) (3, 0)  
**Prerequisite:** None  
The purpose of this course is to survey the biological, psychological, and sociological causes of differences in behavior. Classification and diagnostic categories will also be discussed. (1.1) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available  

MEN 213 Crisis Intervention (3) (3, 0)  
**Prerequisite:** None  
The purpose of this course is to give students a working knowledge of how to deal with persons in crisis. Special application of the concepts will be stressed. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available  

NOTE: This course is offered concurrently as GER 213 and SUB 213. The student must decide whether to earn credits in Mental Health (MEN), Gerontology Mental Health (GER) or Substance Abuse Counseling (SUB) prior to enrolling.

MEN 215 Basic Substance Abuse & Treatment (3) (3, 0)  
**Prerequisite:** None  
This course will introduce the student to the nature and extent of substance abuse. Clinical manifestations and methods of treatment will be discussed. Concepts and resources in helping the substance abuser and his/her social environment will be included. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available  

NOTE: This course is offered concurrently as SUB 215. The student must decide whether to earn credits in Mental Health (MEN) or Substance Abuse Counseling (SUB) prior to enrolling.

MEN 216 Dealing with Death (3) (3, 0)  
**Prerequisite:** None  
This course is designed to help the student gain some insight and understanding of the psychological applications of death in our society and how to care for the dying person and all members of the grieving family. Levels of grief experienced by children at all ages will be considered. (1.1) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available  

NOTE: This course is offered concurrently as ECE 216 and GER 216. The student must decide whether to earn credits in Mental Health (MEN), Early Childhood Education (ECE) or Gerontology Mental Health (GER) prior to enrolling.

HUMAN SERVICES—PSYCHIATRIC REHABILITATION

PRE 101 Survey of Psychiatric Rehabilitation (3) (3, 0)  
**Prerequisite:** None  
This course is the first in the series for the Psychiatric Rehabilitation Certificate. Courses in the series focus on a rehabilitative approach to serving individuals with severe mental illness. This approach is based on the premise that consumers set the goals for the rehabilitation team. The survey course has four major themes: 1) understanding psychiatric disability and current approaches to treatment; 2) the mental health system and surrounding legal issues; 3) psychiatric rehabilitation through vocational and skills training; and 4) family and community support systems. The orientation of the course is more practical than theoretical, and there is considerable opportunity to observe and practice relevant skills. Consumers serve as guest speakers to highlight issues of empowerment and stigma, and to increase understanding of consumer experiences with the mental health system. This course is appropriate for students planning careers in mental health. Course is repeatable up to 12 credits. (1.2) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Not Available
PRE 101 Health Skills (3) (3, 0)
Prerequisite: 101
This course is the third in the series for the Psychiatric Rehabilitation Certificate. The PRCP is a four course, plus internship, program targeting paraprofessionals working in the psychiatric rehabilitation field. Courses in the series focus on a rehabilitative approach to serving individuals with severe mental illness. The approach is based on the premise that consumers set goals for the rehabilitation team.

The Health Skills course examines three dimensions of wellness: Physical, Emotional, and Environmental. This organization uses a multidimensional model of health based on wellness continua in each dimension. This view that wellness is more than the absence of illness guides students through discussions and skills development designed to improve the overall well-being of persons with severe mental illness.

The orientation of the course is more practical than theoretical, and there is considerable opportunity to observe and practice relevant skills. Students will learn the fundamentals of physical wellness, including diet, nutrition, exercise, sanitation, disease prevention and control, and special health considerations for persons with severe mental illness. The emotional dimension of wellness includes social support, physical and sensory accommodations, and geriatric and developmental disabilities. Students will learn the essentials of environmental safety, including use of safety equipment and proper body mechanics. Students will develop and practice skills for determining vital signs and documenting their observations. (1.2) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

PRE 102 Psychiatric Rehabilitation Skills (3) (3, 0)
Prerequisite: 101
This course is the second in the series for the Psychiatric Rehabilitation Certificate. The orientation of the course is more practical than theoretical, and there is considerable opportunity to observe and practice relevant skills. Students learn basic techniques for conducting interviews for use in assessment, treatment planning, and therapeutic interactions with consumers. Students learn to conduct skills training groups and apply behavioral techniques for implementing programs that promote desired skills. Techniques for intervening in crisis situations, and preventing and managing aggression are presented. Course is repeatable up to 12 credits. (1.2) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

PRE 125 Health Skills for Psychiatric Rehab. (3) (3, 0)
Prerequisite: 101
This course is the third in the series for the Psychiatric Rehabilitation Certificate. The PRCP is a four course, plus internship, program targeting paraprofessionals working in the psychiatric rehabilitation field. Courses in the series focus on a rehabilitative approach to serving individuals with severe mental illness. This approach is based on the premise that consumers set goals for the rehabilitation team.

The Health Skills course examines three dimensions of wellness: Physical, Emotional, and Environmental. This organization uses a multidimensional model of health based on wellness continua in each dimension. This view that wellness is more than the absence of illness guides students through discussions and skills development designed to improve the overall well-being of persons with severe mental illness.

The orientation of the course is more practical than theoretical, and there is considerable opportunity to observe and practice relevant skills. Students will learn the fundamentals of physical wellness, including diet, nutrition, exercise, sanitation, disease prevention and control, and special health considerations for persons with severe mental illness. The emotional dimension of wellness includes social support, physical and sensory accommodations, and geriatric and developmental disabilities. Students will learn the essentials of environmental safety, including use of safety equipment and proper body mechanics. Students will develop and practice skills for determining vital signs and documenting their observations. (1.2) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

PRE 150 Vocational & Community Living Skills (3) (3, 0)
Prerequisite: PRE 101
This course is the fourth in the series for the Psychiatric Rehabilitation Certificate. Courses in the series focus on a rehabilitative approach to serving individuals with severe mental illness. This approach is based on the premise that consumers set goals for the rehabilitation team.

The Vocational and Community Living Skills courses examine Vocational Rehabilitation and Community Living Skills. Both themes address skills for working with community, state, and federal agencies that serve persons with severe mental illness.

The orientation of the course is more practical than theoretical, and there is considerable opportunity to observe and practice relevant skills. Students will learn the fundamentals of vocational rehabilitation, including duties and tasks commonly required in vocational settings (e.g., mediation, negotiation, job coaching, job analysis) and the development of employment sites. Practical application of current policies (e.g., Americans with Disabilities Act) impacting employment sites are presented. Networking skills, common state and federal benefit programs, and community-based service provision are presented in the Community Living Skills portion of the course. (1.2) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

PRE 201 Internship for Survey of Psych Rehab (.5) (0, 2.5)
Prerequisite: PRE 101 or concurrent enrollment in PRE 101
This internship requires a minimum of 38 clock hours of field experience by the student. Experiences are a combination of observation and participation/interaction with consumers of mental health services. The 38 hours will include four of the following areas: inpatient milieu and general activities, case management activities, vocational training activities, skills training activities, and consumer-led activities. All experiences should focus on a rehabilitative approach to serving individuals with severe mental illness. Group or individual supervision with on-site clinical staff AND/OR supervision by field placement director is also required. (1.2) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

PRE 202 Psych Rehab Skills - Internship (.5) (0, 2.5)
Prerequisite: PRE 102 or concurrent enrollment in PRE 102
This internship requires a minimum of 38 clock hours of field experience by the student. Experiences are a combination of observation and participation/interaction with consumers of mental health services. The 38 hours will include interviewing skills and leading skills training groups, AND at least one of the following: behavior definition and task analysis, aggression management, assessment and treatment planning, or crisis intervention. All experiences should focus on a rehabilitative approach to serving individuals with severe mental illness. Group or individual supervision with on-site clinical staff AND/OR supervision by field placement director is also required. (1.2) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

PRE 203 Health Skills for PR - Internship (.5) (0, 2.5)
Prerequisite: PRE 125 or concurrent enrollment in PRE 125
This internship requires a minimum of 38 clock hours of field experience by the student. Experiences are a combination of observation and participation/interaction with consumers of mental health services. The 38 hours will include eight activities in the following areas: physical wellness, emotional and social wellness, environmental wellness, and documentation. All experiences should focus on a rehabilitative approach to serving individuals with severe mental illness. Group or individual supervision with on-site clinical staff AND/OR supervision by field placement director is also required. (1.2) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

PRE 204 Voc & Comm Living Skills-Internship (.5) (0, 2.5)
Prerequisite: PRE 150 or concurrent enrollment in PRE 150
This internship requires a minimum of 38 clock hours of field experience by the student. Experiences are a combination of observation and participation/interaction with consumer of mental health services. The 38 hours will include two areas: Vocational Rehabilitation and Case Management. All experiences should focus on a rehabilitative approach to serving individuals with severe mental illness. Group or individual supervision with on-site clinical staff AND/OR supervision by field placement director is also required. (1.2) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

HUMAN SERVICES-SUBSTANCE ABUSE COUNSELING/ PREVENTION

SUB 102 Principles & Practices of Human Services (3) (3, 0)
Prerequisite: None
This course will introduce the students to basic skills common to all human services program delivery. It will include dealing with the public, assessment of needs, report writing, networking, basic helping skills, and other core concepts. (1.2) Fall, Spring

Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as HUS 102. The student must decide whether to earn credits in Substance Abuse Counseling (SUB) or Human Services (HUS) prior to enrolling.
COURSE DESCRIPTIONS

SUB 110 Chemical Dependency Regulations (3)  (3, 0)
Prerequisite: None
This course will deal with the complex regulations, laws, and record keeping that apply to chemical dependency treatment and reporting. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

SUB 122 Basic Substance Abuse Pharmacology (3)  (3, 0)
Prerequisite: None
This course deals with the major categories of drugs, their effects and symptoms of overdose. Basic intervention strategies will be discussed. Illegal drugs will also be included. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

SUB 125 Special Populations (3)  (3, 0)
Prerequisite: None
This course deals with the problems most often encountered when counseling substance abuse clients and their families. This includes those individuals that have been affected by substance abusers as well as abusers themselves. Self awareness will be stressed. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

NOTE: This course is offered concurrently as HUS 125 and MEN 125. The student must decide whether to earn credits in Substance Abuse Counseling (SUB), Human Services (HUS) or Mental Health (MEN) prior to enrolling.

SUB 201 Field Experience I and Seminar (4)  (2, 10)
Prerequisite: Consent of instructor
In-residence training is a supervised opportunity for the student to have first-hand experience in an institutional setting treating substance abusers. In this setting, it is expected that the student will develop proficiency and display the skills required to perform adequately on-the-job. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

SUB 202 Field Experience II and Seminar (4)  (2, 10)
Prerequisite: C or better in SUB 201
In-residence training is a supervised opportunity for the student to have first-hand experience in an institutional setting that meets his/her area of interest. In this setting, it is expected that the student will develop proficiency and display the skills required to perform adequately on-the-job. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

SUB 203 Field Experience III and Seminar (4)  (2, 13)
Prerequisite: C or better in SUB 202 or consent of instructor
Field experience is an opportunity for the substance abuse counseling student to complete the additional 200 hours of supervised internship experience as required for full certification by Illinois Alcohol and Other Drug Certification Association, Inc. Students will have first hand experience working with clients in a variety of treatment settings. They will complete the required training and display the skills required of a substance abuse counselor. Focus will be on practicing the 12 core functions of the counselor. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

SUB 205 Introduction to Group Processes (3)  (3, 0)
Prerequisite: None
This course is designed to meet the needs of the student who will help others on a group basis. The major focus is on increasing communication at all age levels, interpersonal knowledge and leadership skills in an atmosphere that allows students to study themselves and their relationships with other people. The course is taught using the laboratory approach which gives students the opportunity to experience the small group processes and theory being studied. Students are encouraged to examine their own value base, self-concept and interpersonal style, and the implication that these have in working with adults as well as children. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as EDN 205 and HUS 205. The student must decide whether to earn credits in Substance Abuse Counseling (SUB), Education (EDN) or Human Services (HUS) prior to enrolling.

SUB 213 Crisis Intervention (3)  (3, 0)
Prerequisite: None
The purpose of this course is to give students a working knowledge of how to deal with persons in crisis. Special application of the concepts will be stressed. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as GER 213 and MEN 213. The student must decide whether to earn credits in Substance Abuse Counseling (SUB), Gerontology Mental Health (GER) or Mental Health (MEN) prior to enrolling.

SUB 215 Basic Substance Abuse & Treatment (3)  (3, 0)
Prerequisite: None
This course will introduce the student to the nature and extent of substance abuse. Clinical manifestations and methods of treatment will be discussed. Concepts and resources in helping the substance abuser and his/her social environment will be included. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as MEN 215. The student must decide whether to earn credits in Substance Abuse Counseling (SUB) or Mental Health (MEN) prior to enrolling.

SUB 220 Program Development for Prevention (3)  (3, 0)
Prerequisite: None
This course will emphasize the concept and designs of prevention programs. Current theory and research methods to meet the needs of specific target populations will be stressed. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Available

SUB 222 Issues in Prevention (3)  (3, 0)
Prerequisite: None
This course will deal with the impact of social policy, linkages, marketing and working with volunteers and the media. Consultation will also be stressed. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Available

SUB 224 Prevention Teaching Methods (3)  (3, 0)
Prerequisite: None
This course will deal with methods of teaching prevention and emphasize special areas of approach to meet the needs and interests of specific populations. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available
HUMANITIES

HUM 101, 102, 103, 110, 112, 113, 170, 202, 203, 204, 205, and 216 fulfill the humanities requirement for the Associate in Arts, Associate in Science, Associate in Fine Arts, and Associate in Engineering Science Degrees.

HUM 115 and 116 fulfill the humanities requirement for the A.A., A.S., A.F.A. and A.E.S.; however, only one can count toward General Education.

HUM 101, 102, and 103 fulfill either the humanities requirement or the fine arts requirement for the A.A., A.S., and A.E.S. Degrees.

All HUM courses numbered 100 and above may be used to fulfill the liberal education requirement in the Associate of Applied Science Degree.

All HUM courses numbered 100 and above may be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

HUM 100 Topics in Humanities (Variable Credit 1-3) (1-3, 0)
Prerequisite: None
A multi-disciplined course designed to give students the opportunity to better understand a topic or an artistic, cultural or historical period or movement through a detailed analysis of the arts and ideas of that period or movement. Repeatable to a total of six credits. (1.1) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

HUM 101 Introduction to Western Humanities I (3) (3, 0)
Prerequisite: None
A survey of selected examples of musical, artistic and literary contributions European culture has made to world civilization from pre-history to the Renaissance. This multi-disciplined study is designed to assist students in the recognition and fundamental understanding of the continuity of elements of the European past with their own contemporary culture. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Humanities requirement or the Fine Arts requirements. IAI Course Number: HF 902
Proficiency Credit Available
Pass/No Credit Not Available

HUM 102 Introduction to Western Humanities II (3) (3, 0)
Prerequisite: None
A survey of selected examples of musical, artistic and literary contributions European culture has made to world civilization from the Renaissance to modern times. This multi-disciplined study is designed to assist students in the recognition and fundamental understanding of the continuity of elements of the European past with their own contemporary culture. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Humanities requirement or the Fine Arts requirements. IAI Course Number: HF 903
Proficiency Credit Not Available
Pass/No Credit Not Available

HUM 103 Introduction to Non-Western Humanities (3) (3, 0)
Prerequisite: None
Introduction to the artistic, religious and philosophical expressions of cultures in areas other than Europe and the Europeanized cultures in the Americas showing the interrelations of music, art, literature and ideas in these cultures. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Humanities requirement or the Fine Arts requirements. IAI Course Number: HF 904N
Proficiency Credit Not Available
Pass/No Credit Not Available

HUM 104 Classic Theatre-The Humanities in Drama (3) (3, 0)
Prerequisite: None
A study of drama and literature by European authors of the 17th, 18th, and 19th centuries to be developed around a selection of 13 television plays augmented by text materials and readings. Filmed segments will be integrated with anthology, book of critical readings, and workbook-study guide. Basic intent of the course is to aid in understanding historical-social backgrounds of the periods represented, to aid in analyzing form, and literature importance as an enhancement to enjoying the plays, and to develop learning techniques of interpretation and criticism. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

HUM 107 Global Perspectives on World Civilization (3) (3, 0)
Prerequisite: None
The course will present worldwide problems and opportunities inherent in conditions and relationships found in the 20th century and anticipated in the 21st century. It will examine political views, world resources and needs, economic interdependence, emerging and traditional cultural forces and forces for historic change. The major emphasis of course content will be on aspects of the non-western world. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Available

NOTE: This course is offered concurrently as INS 107. The student must decide whether to earn credits in Humanities (HUM) or International Studies (INS) prior to enrolling.

HUM 110 Introduction to Philosophy (3) (3, 0)
Prerequisite: None
Survey course in the area of philosophic thought, intended to acquaint the student with basic philosophical questions and major world views which propose answers to these questions. The areas of epistemology metaphysics and ontology, ethics, aesthetics and social and political philosophy will be among the topics explored from the standpoint of important western and non-western traditions. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H4 900
Proficiency Credit Not Available
Pass/No Credit Not Available

HUM 112 Western Philosophy I (3) (3, 0)
Prerequisite: None
Presents the chronological development of major western philosophical traditions from 600 BCE to 1600 CE. Writings of the Pre-Socratics, Greek Idealists, Hellenistic, Medieval, and Renaissance philosophers will be studied. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H4 901
Proficiency Credit Not Available
Pass/No Credit Available

HUM 113 Western Philosophy II (3) (3, 0)
Prerequisite: None
Recommended: HUM 112
A continuation of HUM 112 emphasizing the chronological developments of major philosophic traditions in the modern western world from 1600 to the present. Similarities to and differences from non-western philosophies will be considered. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H4 902
Proficiency Credit Not Available
Pass/No Credit Available
HUM 115 Critical Reasoning (3) (3, 0)
Prerequisite: None
An introduction to critical reasoning skills as a first step in enhancing one's ability to read and evaluate material for logical consistency and appropriate techniques of elementary argumentation. Effective critical reasoning is essential to one's collegiate success in the humanities, natural and social sciences, and subsequently, in the professions, vocations, business careers, and everyday life. This course will help the student understand, evaluate, and create effective claims and arguments. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H4 906
Proficiency Credit Not Available
Pass/No Credit Available

HUM 116 Logic (3) (3, 0)
Prerequisite: None
Basic introductory course concerning the fundamental principles of logic. The emphasis will be on deductive forms of reasoning from Aristotle's syllogism to modern techniques. The students will gain skills in analyzing and creating arguments and in seeing the applicability of the techniques of logic both to formal intellectual analysis and to the issues encountered in everyday life. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H4 906
Proficiency Credit Not Available
Pass/No Credit Available

HUM 117 Social & Political Philosophy (3) (3, 0)
Prerequisite: None
A philosophical examination of man in society, the foundations of social and political institutions, and the nature of political obligations. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

HUM 118 Philosophy of Science (3) (3, 0)
Prerequisite: None
General features of desirable properties of scientific method and theories, historical development of scientific knowledge, logic of basic scientific concepts. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

HUM 124 Culture and Science in the West (3) (3, 0)
Prerequisite: None
Interdisciplinary study tracing the interrelation between culture and science and the impact of scientific advancement on philosophy, art, architecture, mathematics and technology from ancient to modern times. (1.1) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

HUM 170 Introduction to Asian Philosophies (3) (3, 0)
Prerequisite: None
An introduction to major schools of philosophy and ideas of major philosophers in Eastern and Southern Asia with comparisons to common, established Euro-American ideas and world views. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H4 903N
Proficiency Credit Not Available
Pass/No Credit Available

HUM 202 Philosophy of Religion (3) (3, 0)
Prerequisite: None
Philosophical analysis of selected religious concepts and beliefs including God's existence, evil, miracles, religious experience, faith and morality. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H4 905
Proficiency Credit Available
Pass/No Credit Not Available

HUM 203 Comparative Religions (3) (3, 0)
Prerequisite: None
Basic principles of the world's great religious traditions will be compared and contrasted with a view to gaining an understanding of the primary beliefs and ritual activities of the human family. Religions studied will be selected from among the following: Hinduism, Buddhism, Confucianism, Taoism, Judaism, Christianity and Islam. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H5 904N
Proficiency Credit Available
Pass/No Credit Not Available

HUM 204 Introduction to Religious Studies (3) (3, 0)
Prerequisite: None
An introduction to a variety of religious teachings, rituals and customs found in past history and the present world. Examples for study will be drawn from both traditional and modern societies with an emphasis on discovering the nature of religion and the role it has played in cultural history worldwide. (1.1) Fall
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H5 900
Proficiency Credit Not Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as INS 204. The student must decide whether to earn credits in Humanities (HUM) or International Studies (INS) prior to enrolling.

HUM 205 Introduction to Mythology (3) (3, 0)
Prerequisite: None
An introduction to mythic literature covering literary forms and philosophic themes found in examples drawn from various cultures. Discussions will include such topics as archetypal motifs, matriarchal and patriarchal models, images of divinity and problems of human relationships in myths. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H9 901
Proficiency Credit Available
Pass/No Credit Not Available

HUM 208 Life & Work in the 21st Century (3) (3, 0)
Prerequisite: None
Provides an introduction to the theory as well as the practical applications of a reasoned approach to planning for the future. These approaches are practiced in industry and government and by individuals throughout the world as they seek to cope with the technological and social changes currently in progress. (1.1) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as INS 208. The student must decide whether to earn credits in Humanities (HUM) or International Studies (INS) prior to enrolling.
HUM 216 Ethics (3) (3.0)
Prerequisite: None
This course studies the principal ethical theories and concepts of human conduct and character, up to the middle of the 20th century, and critically evaluates these concepts. The development of conscience is explored and utilized in critical analysis of problems. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H4 904
Proficiency Credit Available
Pass/No Credit Not Available

HUM 217 Aesthetics (3) (3.0)
Prerequisite: None
A critical and philosophical examination of aesthetic experience and fine arts, artistic creativity, the work of art, and criteria of judgment. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

HUM 219 Honors Seminar in Humanities (1) (1.0)
Prerequisite: None
Recommended: Honors status
A seminar which complements a particular humanities course designed to provide the opportunity for study of the course material in greater depth, more sophisticated inquiry or methodology and/or more penetrating research. The student must qualify for honors status. Course is repeatable to three credits. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

HUM 224 Cultural History of Pacific Asia (3) (3.0)
Prerequisite: None
Presents the cultural history of Pacific Asia with primary emphasis on Japan, Korea, and China. The art, literature, ideas and religious heritages and contemporary life of the area will be studied. The course is intended to be particularly useful to those who intend to live or conduct business in the region. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

HUM 231 Contemporary Moral Issues (3) (3.0)
Prerequisite: None
A critical examination of western and non-western theories and concepts from the middle of the 20th century up to the present, which are useful in the analysis of understanding of the contemporary moral problems in personal, organizational and professional settings. Codes of conduct in the business and health care fields get specific attention. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

HUM 297 Independent Study in Humanities (Variable Credit 1-3) (1-3.0)
Prerequisite: Consent of instructor
The student is to have identified a special study project and request advice and direction from the humanities faculty. The program will be carried out under the direction of one or more faculty members who will modify the proposal in accordance with departmental requirements for the credit involved. Repeatable three times to 12 credits. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

ILLUSTRATION
(See Art & Graphic Design)

INDUSTRIAL MANUFACTURING TECHNOLOGY

All IMT courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

IMT 103 Industrial Manufacturing Tech. I (3) (1, 4)
Prerequisite: None
This course provides classroom and laboratory learning experiences related to fundamental machine tool technology by focusing on power saws, drill presses, basic lathes and related tooling. Course includes speed and feed calculation, part layout, basic measuring tools and related manufacturing theory. Safe work practices are strongly stressed. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

IMT 104 Industrial Manufacturing Tech. II (3) (1, 4)
Prerequisite: IMT 103
This course is a continuation of IMT 103 beginning with engine lathes and introducing horizontal mills, vertical mills, and CNC basics. Course includes related information on tooling, speeds and feeds, measuring instruments and manufacturing theory. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

IMT 106 Mathematics for Machinists (5) (5, 0)
Prerequisite: None
Study of all mathematics used in the machine shop. Includes addition, subtraction, multiplication, division, fractions, decimals, percentage, area and volume, algebra, geometry, and right angle trigonometry. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

IMT 108 Industrial Manufacturing Tech. III (3) (1, 4)
Prerequisite: MTH 107 and IMT 104 and DFT 101 or consent of instructor
A continuation of IMT 104, with emphasis on a greater degree of precision in completing a comprehensive project. Gridding operations, form grinding, O.D. and I.D. grinding are introduced, including grinding wheel specifications, technique and related manufacturing theory. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

IMT 110 Intro to Computer Aided Mfg (CAD) (2) (1, 2)
Prerequisite: DFT 101 and MTH 107 or consent of instructor
This course is an introduction to the fundamentals of personal computer based CAD using Personal Computer based software. Standard drafting practices are applied in the generation of geometry using CAD. Topics including orthographic projection (front top side views...), dimensioning and detailing for 2D and 3D drawings are covered. The student will use this knowledge to generate geometry to facilitate computer aided programming via toolpath generation in IMT 221. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available
IMT 112 Metrology-The Study of Measurement (3) (1, 3)
Prerequisite: None
A study and use of the various measuring tools used in the establishment of quality control for the manufacturing of parts and assemblies including basic SPC techniques. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Available

IMT 119 Fabrication of Machine Parts (3) (0, 6)
Prerequisite: IMT 109 or consent of instructor
The student will apply theory learned in lecture/discussion including selection of material and proper machine procedure to complete the project with the necessary tolerances and finishes. Improvements in areas of individual machining weakness will be stressed. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

IMT 131 Injection Molding Machine I (4) (4, 0)
Prerequisite: None
This course is a detailed study of the construction and functions of the thermoplastics injection molding machine. Includes machine components, injection and ejection mechanisms, basic hydraulic and electrical systems. Also included are set-up and safe operation of the molding press. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

IMT 133 Thermoplastics Materials (4) (4, 0)
Prerequisite: None
A study of the properties of thermoplastics materials, including history, definitions, bonding, polymeric molecules, selecting polymers, ingredients of plastics, various forms of thermoplastics in use, identification, properties, testing, design and health and safety. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

IMT 203 Manufacturing Process Technology (3) (3, 0)
Prerequisite: IMT 109 and MTH 107
The studies of the problems involved in the production and assembly of machine parts. The student will use all of his/her previous machining experiences to: 1) determine procedures and clock hours necessary to machine piece parts efficiently; 2) set up logical progression of operations through several machine tools to the completion of piece parts and assembly. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

IMT 204 Industrial Manufacturing Tech. V (5) (0, 10)
Prerequisite: IMT 203 or concurrent enrollment in IMT 203
The laboratory portion of IMT 203. The student will select a project from a group of assembled projects (6 parts or more) to be completed. (1.2) Fall
Proficiency Credit Not Available
Pass/No Credit Not Available

IMT 208 Basic Die Theory (4) (2, 4)
Prerequisite: IMT 108
The study of the design and fabrication of stamping and forming dies used in the metal stamping industry. Included in the course will be the knowledge of metals used for specific stamping operations. The student will be required to design and build his/her assigned die components and produce a satisfactory stamped product. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

IMT 209 Basic Mold Theory (4) (2, 4)
Prerequisite: IMT 108
The study of design and fabrication of plastic, die cast, and rubber molds for production of finished products. Included are units of instruction in the flow characteristics of thermoset thermoplastics and die cast materials and their properties. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

IMT 212 Metallurgy-The Study of Steel (2) (2, 0)
Prerequisite: None
Basic introduction to ferrous and nonferrous materials and alloys and their molecular activity during processing from raw material to finished product. The composition and changes of the metal are analyzed under laboratory testing to heat treatment, destructive and nondestructive testing, and various fabrication processes. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

IMT 214 Jig & Fixture Theory (2) (2, 0)
Prerequisite: IMT 104
The course will cover parameters involved in controlling the design of either a jig or fixture for a specific piece part and the type of construction dictated by the number and design of that piece part. Included in the course will be the relationship of jigs and fixtures to stampings, castings, and machine parts. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

IMT 215 Special Projects in Mach. Tech. (Variable Credit 1-4) (0, 2-8)
Prerequisite: Consent of instructor
This course allows an advanced student to study or complete, in depth, a related subject or project in conjunction with machine tool processing. Course is repeatable to four credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

IMT 220 Introduction to CNC Programming (4) (2, 4)
Prerequisite: IMT 110 or concurrent enrollment in IMT 110 or consent of instructor
This course is an introduction to CNC programming. The use of M & G code programming to produce CNC programs for machined parts will be taught. Specific areas of programming including linear and circular interpolation, canned cycles, drilling, reaming, tapping, boring, face milling, end milling and the use of sub programs will be covered. Machine operation of CNC Bridgeports with Boss 9 and Discovery 308 controls will be covered and used to proof run programs. A microcomputer lab for program composition DNC transfer and computer simulation of Fanuc and a variety of controls will be used. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

IMT 221 Introduction to CNC Toolpathing (4) (2, 4)
Prerequisite: IMT 110 and IMT 220 or concurrent enrollment in IMT 220 or consent of instructor
The student will bring together his/her knowledge of geometry generation using CAD and conventional CNC program generation to learn computer generated toolpathing. The student will generate geometry, initiate computer toolpaths and output executable CNC programs using CAD/MasterCam toolpathing software on personal computers. Additionally post processor generation will be discussed. (1.2) Fall
Proficiency Credit Not Available
Pass/No Credit Not Available
IMT 222 Advanced CNC Programming (4) (2, 4)
Prerequisite: IMT 221
This course is a continuation of IMT 220 with great depth and scope. The complexity of machining center programming increases with the introduction of MACRO programming and advanced part geometry. Emphasis is placed on cycle time efficiency and the incorporation of flexible manufacturing concepts. Programs are composed utilizing CAD, CAM software on personal computers and proven Bridgeport Boss 9 and Discovery 308 Machine Centers Probing functions are introduced. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

IMT 222 Special Problems in CNC Programming (2) (1.2)
Prerequisite: IMT 221 and IMT 222 or concurrent enrollment in IMT 222
Exploration of advanced topics in Computer Aided Manufacturing. DNC links, CIM Environments and extended capabilities of CAD/CAM not realized by each system individually are illustrated and discussed. Projects in CNC problem solving and trouble shooting are accomplished utilizing the CNC machine lab and microcomputer labs using CAD, CAM software on personal computers. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

IMT 231 Injection Molding Machine II (5) (4, 2)
Prerequisite: IMT 131
This course is the continuation of IMT 131 and the introduction to hydraulic systems and components and the reading of hydraulic and electrical schematics. The use of an injection molding machine to illustrate electro mechanical hydraulic interaction is utilized. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

IMT 232 Injection Molding Dies (2) (2, 0)
Prerequisite: IMT 133 & IMT 231
The student will acquire a full understanding of the design of molds, including care of molds, setting basic types and applications, features and components and production of molds. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

IMT 234 Special Topics in Machine Tool (1) (5, 1)
Prerequisite: None
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on specific topics; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of machine tool. Course is repeatable up to four credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

IMT 235 Special Topics in Machine Tool (2) (1.2)
Prerequisite: None
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on specific topics; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of machine tool. Course is repeatable up to eight credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

IMT 236 Special Topics in Machine Tool (3) (1.4)
Prerequisite: None
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on specific topics; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of machine tool. Course is repeatable up to 12 credits. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

IMT 238 Injection Molding Process (5) (5, 0)
Prerequisite: IMT 231
In this course, the student will apply the knowledge acquired in IMT 131, 133 and 231 to the injection molding process. An in-depth study including: machine preparation, installation of molds, setting the parameters, starting and shut-down procedures, removal, design, controls, techniques, defects and cures, safety, processing characteristics and auxiliary equipment (granulators, conveyors, robotics, etc.). (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

INFORMATION
PROCESSING ASSISTANT
(See Office Administration Technology)

INFORMATION
PROCESSING PROFESSIONAL
(See Office Administration Technology)

INTERNATIONAL STUDIES

All INS courses numbered 100 and above may be applied to the area major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

All INS courses numbered 100 and above, excluding nontraditional language courses, may be used to fulfill the social science requirement in the Associate in Liberal Studies and Associate of Applied Science Degrees.

INS Level I Conversational Languages (2) (2, 0)
Prerequisite: None
These courses are tutorial conversational languages for students with little or no knowledge of the language. While they emphasize vocabulary, linguistic structure and conversation, written language skills will also be introduced. Courses are repeatable up to four credits. (1.1) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

INS 261 Japanese I INS 271 Lao I
INS 264 Chinese I INS 273 Vietnamese I
INS 267 Italian I INS 275 Arabic I
INS 269 Russian I INS 277 Swahili I
INS 280 Non-Traditional Language I

INS Level II and III Conversational Languages (2) (2, 0)
Prerequisite: Two credits of Level I Conversational Language or equivalent
Levels II and III are beginning courses which emphasize conversational abilities but more stress is placed upon developing writing and composition skills than in Level I classes. (1.1) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

INS 262 Japanese II INS 272 Lao II
INS 263 Japanese III INS 274 Vietnamese II
INS 265 Chinese II INS 276 Arabic II
INS 266 Chinese III INS 278 Swahili II
INS 268 Italian II INS 281 Non-Traditional Language II
INS 270 Russian II
**COURSE DESCRIPTIONS**

**INS 100 Topics in International Studies**  
(Variable Credit 1-3)  
(1-3, 0)  
**Prerequisite:** None  
A multi-disciplined course designed to make students aware of Western Culture and its international heritage and the traditions that make up that heritage and to help them transcend their own cultural limits and participate in the experiences of other cultures. Western Culture will be a constant in the subject matter and will serve as the “touchstone” against which other cultures will be compared. The non-Western Culture may vary from semester to semester as will the elements of the culture being investigated. (1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Not Available

**INS 107 Global Perspectives on World Civilization (3)**  
(3, 0)  
**Prerequisite:** None  
The course will present worldwide problems and opportunities inherent in conditions and relationships found in the 20th century and anticipated in the 21st century. It will examine political views, world resources and needs, economic interdependence, emerging and traditional cultural forces and forces for historic change. The major emphasis of course content will be on aspects of the non-western world. (1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Available  
NOTE: This course is offered concurrently as HUM 107. The student must decide whether to earn credits in International Studies (INS) or Humanities (HUM) prior to enrolling.

**INS 131 African Cultural History (3)**  
(3, 0)  
**Prerequisite:** None  
A history of major cultural traditions in Africa. The emphasis will be upon the relationships between cultural traditions as found in religion and literature and the social, political and economic history of various areas of Africa and the rest of the world. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available

**INS 133 Asian Cultural History (3)**  
(3, 0)  
**Prerequisite:** None  
A history of major cultural traditions in Asia. The focus will be upon religious ideas, social systems, world views, and systems of governance. Comparisons will be made with Europe and America. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available

**INS 135 Latin American Cultural History (3)**  
(3, 0)  
**Prerequisite:** None  
A history of cultural traditions in Latin America. The focus will be upon major cultural traditions and their relationship to social, economic and political history. The history of Europe and America will serve as background to show the historic relationship of Latin America to the rest of the world. (1.1) Spring  
Proficiency Credit Not Available  
Pass/No Credit Available

**INS 138 Introduction to Islamic Civilization (3)**  
(3, 0)  
**Prerequisite:** None  
The course covers the development of Islamic society from its early Arabic foundations to the multinational character that marks it today. Primary attention will be focused on the Middle East with secondary attention given to such other Islamic areas as Indonesia and sub-Saharan Africa. The course will study the historic development of Islamic societies since Mohammed as well as the theology, literature, art and social systems found in that time and place. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available

**INS 159 A History of the Vietnam Conflict (3)**  
(3, 0)  
**Prerequisite:** None  
This course employs the medium of video to examine the history of conflict in Vietnam. Primary emphasis is given to America’s involvement but reserve books include Southeast Asian perspectives on the conflict. Students are encouraged to develop their own answers to the many questions raised by the Vietnam conflict. (1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Available

**INS 160 Survey of International Business (3)**  
(3, 0)  
**Prerequisite:** BUS 100 or consent of instructor  
Basic course introducing international marketing, analysis of international business opportunities and market entry strategies, finances, and the impact of cultural environments upon such decisions. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available  
NOTE: This course is offered concurrently as BUS 160. The student must decide whether to earn credits in International Studies (INS) or Business (BUS) prior to enrolling.

**INS 201 Introduction to Cross-Cultural Education (3)**  
(3, 0)  
**Prerequisite:** None  
Designed to increase the student's awareness of other cultures, other perspectives, and his/her own involvement in the global community. The course will also concentrate on the study of effective teaching strategies and resources for cross-cultural teaching. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available  
NOTE: This course is offered concurrently as EDN 201. The student must decide whether to earn credits in International Studies (INS) or Education (EDN) prior to enrolling.

**INS 204 Introduction to Religious Studies (3)**  
(3, 0)  
**Prerequisite:** None  
An introduction to a variety of religious teachings, rituals and customs found in past history and the present world. Examples for study will be drawn from both traditional and modern societies with an emphasis on discovering the nature of religion and the role it has played in cultural history worldwide. (1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Not Available  
NOTE: This course is offered concurrently as HUM 204. The student must decide whether to earn credits in Humanities (HUM) or International Studies (INS) prior to enrolling. Please note that INS 204 does not meet ECC/IAI General Education/Humanities requirements, while HUM 204 does meet those requirements.

**INS 206 Field Study in Foreign Cultures**  
(Variable Credit 1-3)  
(1-3, 0)  
**Prerequisite:** Consent and approval of the International Studies Department  
This is a field study course in which the student will spend a period of time outside the U.S. or Canada in a context which will assure a meaningful exposure to a non-American culture. A program of study will be designed by the faculty of the International Studies Department, using preparatory readings and stated objectives together with a specific program of study for the time spent abroad. Repeatable to a total of six credits. (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available
INS 208 Life & Work in the 21st Century (3) (3, 0)
Prerequisite: None
Provides an introduction to the theory as well as the practical applications of a reasoned approach to planning for the future. These approaches are practiced in industry and government and by individuals throughout the world as they seek to cope with the technological and social changes currently in progress. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available
NOTE: This course is offered concurrently as HUM 208. The student must decide whether to earn credits in International Studies (INS) or Humanities (HUM) prior to enrolling.

INS 219 Honors Seminar in International Studies (1) (1, 0)
Prerequisite: None
Recommended: Honors status
A seminar which complements a particular international studies course designed to provide the opportunity for study of the course material in greater depth, more sophisticated inquiry or methodology and/or more penetrating research. The student must qualify for honors status. Course is repeatable to three credits. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

INS 224 Cultural History of Pacific Asia (3) (3, 0)
Prerequisite: None
Presents the cultural history of Pacific Asia with primary emphasis on Japan, Korea, and China. The art, literature, ideas and religious heritages and contemporary life of the area will be studied. The course is intended to be particularly useful to those who intend to live or conduct business in the region. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Available
NOTE: This course is offered concurrently as HUM 224. The student must decide whether to earn credits in International Studies (INS) or Humanities (HUM) prior to enrolling.

INS 297 Independent Study in International Studies (Variable Credit 1-3) (1-3, 0)
Prerequisite: None
The program will be carried out by the student under the personal direction of one or more faculty members. Normally, the student registering for the course will have a topic or project in mind which he/she has discussed with faculty or other activities that will be assigned by departmental faculty who have reviewed the proposed project. Repeatable three times to 12 credits. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

JOURNALISM

JRN 130 Introduction to Mass Communications (3) (3, 0)
Prerequisite: None
How do the Nielsen ratings work? Why are daily urban newspapers in decline? Who really controls network programming? How does advertising plant desires, fears and values? The answer to these and other questions concerning mass media can be found in this course. The overall objective is to help students become better consumers of media through a clearer understanding of how media and their messages affect us all. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

JRN 131 Fundamentals of Journalism (3) (3, 0)
Prerequisite: ENG 101 or consent of instructor
Recommended: Keyboarding skills
At easy-to-use IBM personal computers in a laboratory setting, students learn the basics of news writing and compose both hard and soft news articles. The course is fully transferable to other college and university journalism programs. But those simply wishing to write more effective club newsletters, PR materials or freelance articles will find the course structure and environment suitable to their needs as well. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

JRN 134 Newspaper Workshop (1) (0, 2)
Prerequisite: None
Practical training in all aspects of newspaper production. Students enrolled are responsible for managing and publishing the student newspaper, gathering news and feature material, writing, editing, layout, photography and advertising. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

JRN 298 Topics in Journalism (3) (3, 0)
Prerequisite: May vary depending upon the topic
This course will provide an opportunity for students to study specific facets of journalism in greater detail. Possible topics might include public relations, advertising, copy writing, industrial communications, etc. Topics would rotate for this three credit course. Repeatable to 12 credits. (1.1) On Demand
Proficiency Credit Available
Pass/No Credit Available

KEYBOARDING
(See Office Administration Technology)

LAW ENFORCEMENT
(See Criminal Justice)

LEADERSHIP DEVELOPMENT
(See General Student Development)

LEGAL OFFICE ASSISTANT
(See Office Administration Technology)

LEGAL OFFICE PROFESSIONAL
(See Office Administration Technology)
LIT 201, 202, 203, 205, 210, 211, 214, 215, 216, 217, 223, 229, and 235 fulfill the humanities requirement for the Associate in Arts, Associate in Science, Associate in Fine Arts and Associate in Engineering Science Degrees.

LIT 230, 241, 243, and 245 fulfill the humanities requirement for the A.A., A.S., A.E.S. and A.F.A. Degrees; however, only one of these courses can count as general education.

LIT 231, 242, and 244 fulfill the humanities requirement for the A.A., A.S., A.E.S. and A.F.A. Degrees; however, only one of these courses can count as general education.

All LIT courses numbered 100 and above may be used to fulfill the liberal education requirement in the Associate of Applied Science Degree.

All LIT courses numbered 100 and above may be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

ADVANCED LITERATURE PLACEMENT

Based on the score received on the Advanced Placement (AP) Examination, credit is available for LIT 215 (AP, 5).

LIT 201 Introduction to Literature: Fiction (3) (3, 0)
Prerequisite: None
Students in this course will engage in critical reading and discussion of short stories and novels from a range of literatures. Students will gain knowledge and skills to support more advanced study of literature, as well as an appreciation of reading fiction for life-long learning. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 901
Proficiency Credit Not Available
Pass/No Credit Available

LIT 202 Introduction to Literature: Drama (3) (3, 0)
Prerequisite: None
In this course, students will study representative plays from the major periods in the development of Western drama. The course will include works from Euripides, Shakespeare, and Moliere through the modern works of Ibsen, Shaw, Chekhov, Brecht, Beckett, and Albee. The goal of the course is to make students more discerning, better informed audience members or theater practitioners. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 902
Proficiency Credit Not Available
Pass/No Credit Available

LIT 203 Introduction to Literature: Poetry (3) (3, 0)
Prerequisite: None
In this course, students will achieve a greater understanding and appreciation of literature through reading and discussing representative poems, with some attention to critical work on poetry. Students will become familiar with poetic forms, genres, and techniques; they will also gain knowledge and skills to deal effectively with matters of interpretation. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 903
Proficiency Credit Not Available
Pass/No Credit Available

LIT 205 Introduction to Shakespeare (3) (3, 0)
Prerequisite: None
This course is an introduction to the works of William Shakespeare. A variety of his most interesting plays will be read and discussed, including at least one comedy, one tragedy and one historical drama. Students will also read some of Shakespeare's more notable poems. The goal is to develop an understanding and appreciation of the man generally considered the greatest writer in the history of the English language. Because Shakespeare's plays were meant to be seen, students will watch an acclaimed film production of each work. Students will also take an optional trip to the Chicago Shakespeare Theatre. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 905
Proficiency Credit Not Available
Pass/No Credit Available

LIT 210 Contemporary Multicultural Lit (3) (3, 0)
Prerequisite: None
In this course students will examine twentieth century multicultural literature in the various genres: drama, short story, novel, and poetry. Where possible, students will make use of films, plays, and ECC Writers Center readings. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 910D
Proficiency Credit Not Available
Pass/No Credit Available

LIT 211 Introduction to Literature by Women (3) (3, 0)
Prerequisite: None
The goal of this course is to introduce students to the different traditions of literature written by women. Students will read literature by women in English or English translation in various genres with an emphasis on the nineteenth and twentieth centuries: drama, short story, novel, poetry, essays, letters, and memoirs from the fourteenth to the twentieth centuries. Where possible, students will make use of films, plays, and ECC Writers Center readings. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 911D
Proficiency Credit Not Available
Pass/No Credit Available
LIT 214 Masterpieces of American Lit I (3)  (3, 0)
Prerequisite: ENG 101 or concurrent enrollment in ENG 101 or consent of instructor
In this course, students will study the major American writers of the eighteenth and nineteenth century. This class will emphasize the relationship between these writers and modern thinking. (1.1) Fall
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 914
Proficiency Credit Not Available
Pass/No Credit Available

LIT 215 Masterpieces of American Lit II (3)  (3, 0)
Prerequisite: ENG 101 or concurrent enrollment in ENG 101 or consent of instructor
In this course, students will study works by major American writers from 1900 until the present. Such writers as Frost, Hemingway, and Eliot will be emphasized. (1.1) Spring
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 915
Proficiency Credit Not Available
Pass/No Credit Available

LIT 216 Masterpieces of English Lit I (3)  (3, 0)
Prerequisite: ENG 101 or concurrent enrollment in ENG 101 or consent of instructor
In this course, students will study selections of the major English writers from the Middle Ages through the eighteenth century. Selections will include the works of Chaucer, Shakespeare, Donne, Milton, and Swift. (1.1) Fall
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 912
Proficiency Credit Not Available
Pass/No Credit Available

LIT 217 Masterpieces of English Lit II (3)  (3, 0)
Prerequisite: ENG 101 or concurrent enrollment in ENG 101 or consent of instructor
In this course, students will study selections of the major English writers from the nineteenth through the early twentieth century. They will also learn about related literary and philosophical movements. (1.1) Spring
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 913
Proficiency Credit Not Available
Pass/No Credit Available

LIT 219 Contemporary Literature (3)  (3, 0)
Prerequisite: None
In this course, students will study of twentieth century literature in the various genre: drama, short story, novel, and poetry. The emphasis will be on recent literature of the Western World. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

SPH 120 Oral Interpretation of Literature  See courses in Speech.

LIT 222 American Short Story-Reading and Film (3)  (3, 0)
Prerequisite: None
In this course, students will learn about the elements of fiction through reading 16 classic short stories and viewing a series of filmed short stories which appeared on public television. The course will focus on the special qualities of the written versus the filmed presentation of the stories. (1.1) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

LIT 223 Survey of Non-Western Short Story (3)  (3, 0)
Prerequisite: None
In this course, students will read short stories from non-western societies; the course will emphasize works from Asia, Africa, Latin America, and tribal cultural traditions. The works will be viewed in the light of their own communities as well as in light of contemporary multicultural issues. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 908N
Proficiency Credit Not Available
Pass/No Credit Available

LIT 225 Children's Literature (3)  (3, 0)
Prerequisite: None
Children's Literature is a course in the history, psychology, theory and current issues in children's literature, from preschool through adolescence. Students will read and study children's literature and become familiar with outstanding authors and illustrators of children's books. Students will submit experiential projects, reading portfolios, critical essays and reports on children's books and literature. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Available

LIT 229 Novel and Film (3)  (3, 0)
Prerequisite: None
In this course students will view some critically acclaimed movies and discuss the books those movies are based on. The goal is that students will develop an appreciation not only of cinematic techniques but also of good literature. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H9 900
Proficiency Credit Not Available
Pass/No Credit Available

LIT 230 Masterpieces of World Literature I (3)  (3, 0)
Prerequisite: None
World Literature I introduces students to the major works of major writers from the ancient world through the Renaissance with an emphasis on cultural continuity and understanding of human values. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 906
Proficiency Credit Not Available
Pass/No Credit Available

LIT 231 Masterpieces of World Literature II (3)  (3, 0)
Prerequisite: None
World Literature II introduces students to the major works of major writers from the eighteenth century to the modern world with an emphasis on cultural continuity and understanding of human values. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 907
Proficiency Credit Not Available
Pass/No Credit Available

LIT 232 Topics in Literature (3)  (3, 0)
Prerequisite: None
This course offers an individual student an opportunity to do specialized study in a topic or literary movement. Students will read and discuss representative works of literature (short stories, novels, poetry, essays, drama) directed toward increasing the student's understanding and appreciation of both the particular topic or movement and its literary expression. The course is repeatable up to nine credits but no more than six may be applied to GPA and graduation. (1.1) On demand
Proficiency Credit Not Available
Pass/No Credit Available

NOTE: Not all topics studied in LIT 232 will meet upper division major requirements for English or Literature majors.
COURSE DESCRIPTIONS

LIT 235 Bible as Literature (3) (3.0)
Prerequisite: None
In this course, students will study the Bible primarily from a literary rather than a theological or historical basis. Significant prose and poetry from both the Hebrew Bible (the Old Testament) and the New Testament will be examined as representatives of various biblical literary forms. Where appropriate, students will also study non-biblical literature (poetry, short stories, films) based on stories, images, or themes from the biblical texts. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H5 901
Proficiency Credit Not Available
Pass/No Credit Available

LIT 241 Great Books Seminar I (3) (3.0)
Prerequisite: None
The course is a study of classic writings in the humanities using the readings and the shared inquiry method of discussion developed by the Great Books Foundation. The selected readings and course content are different from LIT 242, LIT 243, LIT 244 and LIT 245 even though the method and procedure are the same for each course (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 906
Proficiency Credit Not Available
Pass/No Credit Available

LIT 242 Great Books Seminar II (3) (3.0)
Prerequisite: None
The course is a study of classic writings in the humanities using the readings and the shared inquiry method of discussion developed by the Great Books Foundation. The selected readings and course content are different from LIT 241, LIT 243, LIT 244 and LIT 245 even though the method and procedure are the same for each course (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 907
Proficiency Credit Not Available
Pass/No Credit Available

LIT 243 Great Books Seminar III (3) (3.0)
Prerequisite: None
The course is a study of classic writings in the humanities using the readings and the shared inquiry method of discussion developed by the Great Books Foundation. The selected readings and course content are different from LIT 241, LIT 242, LIT 244 and LIT 245 even though the method and procedure are the same for each course (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 906
Proficiency Credit Not Available
Pass/No Credit Available

LIT 244 Great Books Seminar IV (3) (3.0)
Prerequisite: None
The course is a study of classic writings in the humanities using the readings and the shared inquiry method of discussion developed by the Great Books Foundation. The selected readings and course content are different from LIT 241, LIT 242, LIT 243, and LIT 245 even though the method and procedure are the same for each course. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 907
Proficiency Credit Not Available
Pass/No Credit Available

LIT 245 Great Books Seminar V (3) (3.0)
Prerequisite: None
The course is a study of classic writings in the humanities using the readings and the shared inquiry method of discussion developed by the Great Books Foundation. The selected readings and course content are different from LIT 241, LIT 242, LIT 243 and LIT 244 even though the method and procedure are the same for each course. (1.1) On Demand
Fulfills the ECC/IAI General Education/Humanities requirement. IAI Course Number: H3 906
Proficiency Credit Not Available
Pass/No Credit Available

MACHINE TOOL
(See Industrial Manufacturing Technology)

MANAGEMENT

All MMT and MMR courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

MMR 101 Principles of Retailing (3) (3.0)
Prerequisite: None
This basic course in management emphasizes the application of sound managerial practices and techniques. The functions of management—planning, organizing, staffing, and leading, and controlling—provide the conceptual framework as students increase their understanding of global challenges, ethical decision making, workplace diversity, and technology management. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

MMR 106 Retail Management (3) (3.0)
Prerequisite: MMR 101 or concurrent enrollment in MMR 101
Deals with the subject of retailing from a management point of view. Managerial considerations include goals and objectives, policies, community analysis, site evaluation, store planning, staffing, sales promotions, customer services, store margin and profit controls. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

MMR 110 Fashion Merchandising I (3) (3.0)
Prerequisite: MMR 101 or concurrent enrollment in MMR 101
Designed to acquaint the student with the elements of fashion buying and merchandising. Topics covered: fashion prediction; purchasing techniques; developing; analyzing and maintaining vendor relationships; basic retail calculations; developing, comparing and analyzing product specifications (emphasis on fabrics, textiles, workmanship and style); and proper promotional techniques of product (assumes that buyer also has background responsibility for selling product). Designed to give the student the tools and background necessary to become an assistant buyer, department manager, assistant store manager, and to help those in their own business to purchase and merchandise more efficiently and effectively. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available
MMR 160 Independent Study in Retail Management (4)  (4, 0)  
Prerequisite:  MMR 106  
The student, with the guidance of the Management instructor, will develop a plan of study which will increase his/her retail competency level. The plan may consist of the following: 1) an on-the-job rotation plan; 2) job related projects in the area of retail management; 3) extensive research projects in the area of retail management; 4) extensive readings in the area of retail management; and, 5) combinations of the above.  (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

MMT 100 Fundamentals of Supervision (3)  (3, 0)  
Prerequisite:  None  
An introductory course dealing with supervisor responsibilities, problems, challenges, and opportunities from the management perspective. This course is built around the major needs of the supervisor including management mindedness, leadership, and job knowledge.  (1.2) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Available  

MMT 101 Principles of Management (3)  (3, 0)  
Prerequisite:  None  
Basic course in management with emphasis on the application of sound managerial practices and techniques in the field of management. The functions of management—planning, organizing, staffing, and leading, and controlling—provide the conceptual framework as students increase their understanding of global challenges, ethical decision making, workplace diversity, and technology management.  (1.2) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Available  

MMT 102 Human Relations in Applied Management (3)  (3, 0)  
Prerequisite:  None  
Recommended:  MMT 101  
Develops the application of management principles. Topics such as leadership motivation, cooperation/conflict, personal growth, productivity, satisfaction, formal and informal organization, and individual, group and organizational development will be covered.  (1.2) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

MMT 103 Marketing (3)  (3, 0)  
Prerequisite:  None  
Fundamental course describing the total system of interacting business activities designed to plan, price, promote and distribute want-satisfying products and services. Includes consumer motivation and behavior, consumer buying patterns, product planning and development, distribution channels and the retail market, pricing objectives, promotions, marketing in special fields and evaluation of the marketing effort.  (1.1) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Not Available  

MMT 105 Sales (3)  (3, 0)  
Prerequisite:  None  
A practical course that deals with the sales process (prospecting, preapproach, presentation or demonstration, trial close, answering questions and meeting objections, close, follow-up), motivational and behavioral techniques used in selling, ethics in selling, and the exploration of selling as a career. Each student will be involved in sales demonstrations and the critique of sales demonstrations.  (1.2) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

MMT 107 Human Resource Management (3)  (3, 0)  
Prerequisite:  None  
Recommended:  MMT 101  
Basic course covering the practical situations that managers face in business situations. Designed to help solve day-to-day problems that arise in working with employees and administering programs of employee selection, training, evaluation, compensation, labor relations and personnel planning. Also stressed is the effect of federal legislation on personnel decisions.  (1.2) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

MMT 111 Small Business Management (3)  (3, 0)  
Prerequisite:  None  
Recommended:  MMT 101  
This course is designed to help the student understand the advantages and disadvantages of going into business and identify the form of business that best meets the needs of the entrepreneur. The student should know how the management process applies; how to recruit, select, train, evaluate and compensate personnel; how to recognize the obstacles to success and get an understanding of how to overcome time.  (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available  

NOTE: This course is offered concurrently as ENT 111. The student must decide whether to earn credits in Management (MMT) or Entrepreneurship (ENT) prior to enrolling.  

MMT 115 Advertising & Promotion (3)  (3, 0)  
Prerequisite:  None  
Broad survey of advertising in an economy of abundance and its relationship to marketing, sales and profit. Newspaper, radio, TV and direct mail advertising will be studied. Problems and techniques of planning and coordinating an integrated series of promotional efforts for a successful promotional program will be discussed.  (1.2) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available  

MMT 118 Problems & Projects in Management (3)  (3, 0)  
Prerequisite:  Grade of C or better in MMT 101 and CIS 143 or concurrent enrollment in CIS 143  
Management attitudes and skills will be developed by the utilization of diverse teaching techniques such as computerized management simulations, case studies and role playing. In this course students will apply their spreadsheet skills as they participate in the very realistic management simulations. This course will not be one in which a large amount of new information will be introduced, but one in which attitudes and management skills will be developed using the knowledge that students have learned in their previous management courses.  (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

MMT 125 Leadership Development (3)  (3, 0)  
Prerequisite:  Grade of C or better in MMT 101 or concurrent enrollment in MMT 101  
This course emphasizes development of leadership theory, application, and skills for personal and professional use. Class activities include leadership self-assessment exercises, case role-playing exercises, and presentations.  (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available  

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**COURSE DESCRIPTIONS**

**MMT 145 e-Commerce: A Managerial Perspective (3)**  
**Prerequisite:** Grade of C or better in MMT 101 and CIS 110 or OAT 130 or concurrent enrollment in MMT 101 and CIS 110 or OAT 130  
This course explores the business opportunities, challenges and strategies for the use of electronic commerce. Included will be an examination of retail issues, advertising methods and strategies, service industries, business-to-business concerns, and implementation strategies.  
(1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available  

**NOTE:** This course is offered concurrently as ENT 145. The student must decide whether to earn credits in Management (MMT) or Entrepreneurship (ENT) prior to enrolling.

**MMT 150 Independent Study in Marketing (4)**  
**Prerequisite:** MMT 103  
The student, with the guidance of a Management instructor, will develop a plan of study which will increase his/her management competency level. The plan may consist of the following:  
1. an on-the-job rotation plan;  
2. job-related projects in the area of marketing;  
3. extensive research projects in the area of marketing;  
4. extensive readings in the area of marketing; and,  
5. combinations of the above.  
(1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

**MMT 155 Independent Study in Management (4)**  
**Prerequisite:** MMT 101  
**Recommended:** BUS 101 or ENG 101  
This course focuses on the practical application of management skills and knowledge to problems, practices, case studies, and projects. Using knowledge gained from other classes and on-the-job experience, students will complete extensive writing assignments as a result of reading popular management books and journal articles. Course is repeatable to 16 credit hours.  
(1.2) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

**MMT 162 Conference Seminar in Contemporary Problems of Management (1)**  
**Prerequisite:** None  
Consideration and analysis of contemporary problems in a selected field of management. Participants are called upon to address themselves to the solution of problems in a chosen area of management. This course is repeatable up to a maximum of four credits.  
(1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available  

**MMT 205 Advanced Independent Study in Management (4)**  
**Prerequisite:** MMT 155 and BUS 101 or MMT 155 and ENG 101  
This advanced course continues its emphasis on the practical application of management skills and knowledge to problems, practices, case studies, and projects. Using knowledge gained from other classes and on-the-job experience, students will complete extensive, multifaceted writing assignments as a result of reading popular management books and journal articles. Course is repeatable to 16 credits.  
(1.2) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

**MMT 210 Small Business Finance (3)**  
**Prerequisite:** Grade of C or better in ACC 101  
This course examines the various resources available for funding a small business. The student will analyze financial statements and write a loan proposal. The student will also gain an understanding of working capital and cash management.  
(1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available  

**NOTE:** This course is offered concurrently as ENT 210. The student must decide whether to earn credits in Management (MMT) or Entrepreneurship (ENT) prior to enrolling.

**MMT 233 Special Topics in Management (.5)**  
**Prerequisite:** None  
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics:  
1. adequate and available material on specific topic;  
2. comprehensive outlines for each topic; and  
3. course should be designed to increase skill and knowledge in field of management. Course may be repeated three times.  
(1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

**MMT 234 Special Topics in Management (1)**  
**Prerequisite:** None  
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics:  
1. adequate and available material on specific topic;  
2. comprehensive outlines for each topic; and  
3. course should be designed to increase skill and knowledge in field of management. Course may be repeated three times.  
(1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

**MMT 235 Special Topics in Management (2)**  
**Prerequisite:** None  
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics:  
1. adequate and available material on specific topic;  
2. comprehensive outlines for each topic; and  
3. course should be designed to increase skill and knowledge in field of management. Course may be repeated three times.  
(1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

**MMT 236 Special Topics in Management (.5)**  
**Prerequisite:** None  
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics:  
1. adequate and available material on specific topic;  
2. comprehensive outlines for each topic; and  
3. course should be designed to increase skill and knowledge in field of management. Course may be repeated three times.  
(1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available  

**MARKETING**  
(See Management)
MATH 101, 102, 120, 125, 126, 133, 134, and 201 fulfill the mathematics requirement for the Associate in Arts, Associate in Science and Associate in Fine Arts Degrees.

MTH 133, 134 and 201 fulfill the mathematics requirement for the Associate in Engineering Science Degree.

MTH 113 fulfills the mathematics requirement for elementary education majors only for the Associate in Arts degree.

All MTH courses numbered 100 and above may be applied to the area of concentration and elective requirement in the A.A. and A.S. Degrees.

All MTH courses numbered 100 and above may be used to fulfill the math requirement in the Associate in Liberal Studies Degree and the math/science requirement in the Associate of Applied Science Degree.

ADVANCED MATHEMATICS PLACEMENT

Based on the score received on the Advanced Placement (AP) Examination, credit is available for MTH 133 (Calculus AB test - score of AP, 3), and MTH 133 and MTH 134 (Calculus BC test - score of AP, 3).

PLACEMENT FOR MATHEMATICS

Math requirements vary greatly based on a student’s major, degree or certificate. Choosing the correct math courses should be done with an ECC counselor.

Any student wishing to take a mathematics (MTH prefix) course must take the ECC Placement Test OR meet one of the following:

1. Students with a math ACT score of 23 or higher fulfill the prerequisite for initial placement in the following entry level classes: MTH 101, 102, 110, or 112.

   Even though a score of 23 will exempt you from the placement exam, you may wish to take ECC’s Math Placement Test to qualify for higher level math courses.

2. Students with a math ACT score of 28 or higher and who have completed a high school or college trigonometry course with a “C” or better fulfill the prerequisite for initial placement in MTH 133.

3. Successful completion of a college level mathematics course.

Students who do not meet the above exemptions MUST take the ECC Math Placement Test. Allow one hour and bring a calculator. No appointment is required. No fee is charged. Results are issued to students upon completion of the test. To determine final placement, the student should meet with an ECC counselor to review test scores and high school and/or college transcripts.

If a student does not have high school and/or college transcripts on file, only the ECC Math Placement Test scores will be used to determine final placement.

TRANSFER SEQUENCE

The transfer sequence of courses in Mathematics is MTH 112, 114, 133, 134, 201, and 202. Entrance into this sequence depends on previous background in high school or college. It is not necessary to start at the beginning of the sequence. If needed, Arithmetic (MTH 090), Basic Algebra (MTH 096), Plane Geometry (MTH 097), and Intermediate Algebra (MTH 098) are available, and are listed in the Pre-collegiate and Academic Development Section of this catalog under Developmental Studies.

Science, Engineering, and Mathematics majors should try to complete the sequence through MTH 201, possibly through MTH 202, before transferring.

Business and Social Science students should complete MTH 125 or 112 and 126. MTH 120 is also recommended. Questions on math course sequence may be determined by a conference with a member of the Mathematics department or the counseling staff.

MTH 101 Quantitative Literacy (3) (3, 0)
Prerequisite: Grade of C or better in MTH 097 and MTH 098 or appropriate placement test score and grade of C or better in one year of high school geometry
A course designed to satisfy the general education requirement at the university level. The emphasis of the course is understanding logical arguments, doing abstract thinking, and problem solving. Topics covered include logical statements and arguments, geometry in problem solving, estimation, approximation, problem solving and statistics. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Mathematics requirement. IAI Course Number: M1 901
Proficiency Credit Not Available
Pass/No Credit Not Available

MTH 102 General Education Statistics (3) (3, 0)
Prerequisite: Grade of C or better in MTH 097 and MTH 098 or appropriate placement test score and grade of C or better in one year of high school geometry
An introductory course in descriptive and inferential statistics for students in liberal arts and health related fields. Applications and concepts are emphasized rather than theoretical formulations. Calculators and computers will be used to help make statistical ideas more accessible to students. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Mathematics requirement. IAI Course Number: M1 902
Proficiency Credit Not Available
Pass/No Credit Not Available

MTH 107 Technical Mathematics I (4) (4, 0)
Prerequisite: MTH 090, consent of instructor, or appropriate score on placement test
Intended for students in technical programs or pre-engineering technology programs where a coverage of basic mathematics is required. An integrated approach in algebra plane geometry, and trigonometry. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

MTH 109 Technical Mathematics II (4) (4, 0)
Prerequisite: Grade of C or better in MTH 107 or consent of instructor
Continuation of 107 Technical Mathematics I and an introduction to further methods used in mathematics problem solving needed for technology. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available
MTH 110 Math for Elementary Teaching I (3)  
**Prerequisite:** Grade of C or better in MTH 097 and MTH 098 or appropriate placement test score and grade of C or better in one year of high school geometry  
A course designed for elementary teaching and special education majors. Focuses on mathematical reasoning and problem solving, with topics selected from: sets, functions, logic, the real number system, number theory, probability, statistics, measurement, and non-metric geometry. This is the first of a two-course sequence designed to meet the requirements for state certification in elementary school teaching.  
(1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Not Available

MTH 112 College Algebra (4)  
**Prerequisite:** Grade of C or better in MTH 097 and MTH 098 or appropriate placement test score and grade of C or better in one year of high school geometry  
Survey of advanced mathematics which also provides advanced techniques for further mathematics courses. It concentrates on the theory of equations, logarithmic and exponential functions, proof by mathematical induction and an introduction to combinations and permutations.  
(1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Not Available

MTH 113 Math for Elementary Teaching II (3)  
**Prerequisite:** Grade of C or better in MTH 110  
Second course of a two part sequence designed to meet state certification requirements for elementary school teaching. Counts as general education requirement for elementary education majors when successfully completed in sequence with MTH 110. Mathematical reasoning and problem solving are emphasized for understanding and experience in mathematics. Topics selected from statistics, probability, geometry and measurement, and coordinate geometry. Field observation will be required.  
(1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Not Available

MTH 114 Trigonometry (3)  
**Prerequisite:** Grade of C or better in MTH 112 or appropriate placement test score and grade of C or better in one year of high school geometry; concurrent enrollment in MTH 112 with consent of instructor  
Analytical, functional approach to the subject matter of trigonometry. Applications to, and solutions of, triangles are given, but major emphasis is on relational aspects of the subject. Primary objective is to prepare students for calculus and post-calculus courses.  
(1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Not Available

MTH 120 Statistics I (4)  
**Prerequisite:** Grade of C or better in MTH 112 or appropriate placement test score and grade of C or better in one year high school geometry  
An introductory course in probability and statistics. The ability to handle basic algebraic manipulation is a prerequisite skill. The emphasis of the course is on the use rather than the derivation of the formulas and theorems. The aims of the course are to provide the student with a working knowledge of statistics in order to follow the statistics in the literature of his/her particular field and to provide an introduction for more advanced work in statistics. Major topics are: frequency distributions, sampling, testing hypotheses, regression, correlation, analysis of variance, chi-square, and probability. These and other topics are approached from a fundamental viewpoint to make the study both sound and useful.  
(1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Not Available

MTH 123 Computer Science for Engineers (4)  
**Prerequisite:** Grade of C or better in MTH 133 or equivalent college credit or consent of instructor  
This course is an introduction to computer programming with a strong emphasis on mathematical applications relevant to science and engineering. Students will learn a disciplined approach to problem-solving and algorithm development using selection, repetition, and sequence control structures. Programming topics will include an introduction to basic hardware and operating systems, storage and variables, procedural and data abstraction, parameter passing, arrays, strings, data files, error-handling, program-testing, documentation, and proper programming style. Mathematical topics will include matrices, linear interpolation, convergence, linear regression, roots of functions, solution of simultaneous linear equations, graphing, and numerical integration. This course will be taught using the C++ programming language.  
(1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Not Available

Note: This course is offered concurrently as CIS 123. The student must decide whether to earn credits in Mathematics (MTH) or Computer and Information Sciences (CIS) prior to enrolling.

MTH 125 Finite Mathematics for Business & Management (3)  
**Prerequisite:** Grade of C or better in MTH 112 or appropriate placement test score and grade of C or better in one year of high school geometry  
Emphasizes applications of mathematics in business and the social sciences. Topics include functions, graphical and algebraic methods for solving systems of equations, matrices, linear programming, counting processes, probability and business math. Successful course completion can aid in the extension of problem-solving techniques as well as ensure adequate preparation for further work in mathematics-related fields.  
(1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Not Available

MTH 126 Calculus for Business & Social Science (4)  
**Prerequisite:** Grade of C or better in MTH 112 or appropriate placement test score and grade of C or better in one year of high school geometry  
An introductory course in differential and integral calculus for students majoring in business, or the social or life sciences. A working, rather than a theoretical knowledge of calculus concepts and applications is emphasized.  
(1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Not Available

MTH 133 Calculus with Analytic Geometry I (4)  
**Prerequisite:** Grade of C or better in MTH 112 and MTH 114 or appropriate placement test score  
The first course in a three-semester sequence designed to give the student a sound understanding of the concepts and techniques of the differential and integral calculus with applications.  
(1.1) Fall, Spring  
Proficiency Credit Available  
IAI Course Number: M1 900

MTH 134 Calculus with Analytic Geometry II (5)  
**Prerequisite:** Grade of C or better in MTH 133 or equivalent college credit  
This is the second course of a three-semester sequence in analytic geometry and calculus. A continuation of the topics in MTH 133.  
(1.1) Fall, Spring  
Proficiency Credit Available  
IAI Course Number: M1 900

MTH 135 Calculus with Analytic Geometry III (5)  
**Prerequisite:** Grade of C or better in MTH 134 or equivalent college credit  
This is the third course of a three-semester sequence in analytic geometry and calculus. It is recommended for students majoring in mathematics and the sciences, engineering, and the physical sciences.  
(1.1) Fall, Spring  
Proficiency Credit Available  
IAI Course Number: M1 900

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MTH 135 Introduction to Linear Algebra (3) (3, 0)
Prerequisite: Grade of C or better in MTH 134
First course in vectors and matrices, vector spaces, and linear transformations. The ideas discussed in this course not only serve as a good introduction to the more abstract courses a mathematics student meets at the junior-senior level, but they also have many useful applications outside of mathematics. Covers the following topics: vectors, operations on matrices, matrices, inverse of a matrix, solution of systems of linear equations, rank of a matrix, vector spaces and subspaces, linear dependence and independence, basis and dimension, linear transformations, sums, composites, inverses of linear transformations, range and kernel of a linear transformation. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

MTH 201 Calculus with Analytic Geometry III (5) (5, 0)
Prerequisite: Grade of C or better in MTH 134
The final course of the three-semester sequence in analytic geometry and calculus. A continuation of the topics in MTH 134. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Mathematics requirement. IAI Course Number: M1 900
Proficiency Credit Not Available
Pass/No Credit Not Available

MTH 202 Introduction to Differential Equations (3) (3, 0)
Prerequisite: Grade of C or better in MTH 201
Introductory course in differential equations covering methods of solution of first order differential equations with applications including Laplace transforms. (1.1) Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

MEDICAL LABORATORY TECHNOLOGY
(See Clinical Laboratory Technology)

MEDICAL OFFICE ASSISTANT
(See Office Administration Technology)

MEDICAL OFFICE PROFESSIONAL
(See Office Administration Technology)

MENTAL HEALTH GENERALIST
(See Human Services)

METAL FABRICATION
(See Welding)

MICROBIOLOGY
(See Biology)

MIG WELDING
(See Welding)

MOLD MAKING
(See Industrial Manufacturing Technology)

MONTESSORI
(See Human Services)

MULTIMEDIA DESIGN
(See Graphic Design)

MUSIC

MUS 104 may be used to fulfill the fine arts requirement in the Associate in Arts, Associate in Science, and Associate in Fine Arts and Associate in Engineering Science Degrees, and the liberal education requirement in the Associate of Applied Science Degree.

MUS 105 and 106 may be used to fulfill the fine arts requirements in the A.A., A.S., A.E.S. and A.F.A. (Art Emphasis only) Degrees, and the liberal education requirement in the A.A.S. Degree.

All MUS courses numbered 100 and above may be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

Students intending to major in Music must audition on their major instrument or in voice and complete theory and keyboarding examinations.

ADVANCED MUSIC PLACEMENT

Based on the score received on the Advanced Placement (AP) Examination, credit is available for MUS 128 and MUS 129 (AP, 3).

MUS 100 Introduction to Music Theory (2) (2, 0)
Prerequisite: None
Recommended: For students with no previous training as well as students with previous training who want a refresher course before entering MUS 128.
Study of notation of melody, rhythm, meter as well as musical terminology. Writing, playing and singing of scales, intervals and triads. (1.1) On Demand
Proficiency Credit Available
Pass/No Credit Available

MUS 101 Band (1) (0, 3)
Prerequisite: Audition or consent of instructor
A community concert band open to all qualified adults as well as college and high school students. A wide variety of the finest literature for concert band is studied, from classics to contemporary works. The band performs several times per semester. Repeatable to a maximum of four credits. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

MUS 102 Jazz Lab Band (1) (0, 3)
Prerequisite: Audition or consent of instructor
Participation in the stage band will offer the opportunity for development of knowledge and performance skills of music in the modern idiom: swing, blues, jazz and rock. The band presents at least one annual concert in addition to performing for school functions and civic organizations. Repeatable to a maximum of four credits. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

MUS 104 Musics of the World (3) (3, 0)
Prerequisite: None
An introduction to music in various parts of the world with emphasis on the way in which music functions within society. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F1 903N
Proficiency Credit Not Available
Pass/No Credit Available
**MUS 105 Music Appreciation (3)**

**Prerequisite:** None

Survey of main developments in music history beginning with the Renaissance Period and extending into the 20th century. Listening to recordings and tapes as well as outside reading is required. (1.1) Fall, Spring, Summer

Fulfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F1 800

Proficiency Credit Available
Pass/No Credit Not Available

**MUS 106 Music Literature from 1400 to 1750 (3)**

**Prerequisite:** MUS 105 or consent of instructor

Includes extensive listening to recordings from the Middle Ages through Bach and Handel. Outside reading and term paper required. (1.1) Spring, alternating years

Fulfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F1 901

Proficiency Credit Available
Pass/No Credit Not Available

**MUS 107 Music Literature from 1750 to Present (3)**

**Prerequisite:** MUS 105 or consent of instructor

Continuation of 106 Music Literature from 1400 to 1750, covering the years from the Pre-Classical Period to the present. (1.1) Spring, alternating years

Proficiency Credit Available
Pass/No Credit Not Available

**MUS 108 Elgin Area Honors Choir (1)**

**Prerequisite:** Audition and recommendation of high school or college choral director

Repertoire of outstanding choral works. At least two concerts presented annually. Possibility of a small tour locally. Repeatable to four credits. (1.1) On Demand

Proficiency Credit Not Available
Pass/No Credit Not Available

**MUS 109 Keyboard Harmony (2)**

**Prerequisite:** None

**Recommended:** Piano skills

A study of the basic principles of keyboard harmonization. The student will learn basic diatonic chords as well as receiving an introduction to altered chords. (1.1) On Demand

Proficiency Credit Available
Pass/No Credit Not Available

**MUS 110 Choir I (1)**

**Prerequisite:** Audition or consent of instructor

Repertoire of outstanding choral works. Three to four concerts presented annually. Rehearsals held every week. Repeatable to a maximum of four credits. (1.1) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

**MUS 111 Choral Ensemble (1)**

**Prerequisite:** Audition or consent of instructor

Repertoire includes standard choral works as well as modern compositions. Rehearsals held every week. Repeatable to a maximum of four credits. (1.1) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

**MUS 112 Elgin Choral Union Chamber Ensemble (1)**

**Prerequisite:** Consent of instructor or concurrent enrollment in MUS 110

The class will be a small chamber choir chosen from the membership of the Elgin Choral Union. It will perform music from the literature for small choral groups, primarily but not exclusively from the Renaissance period. This is primarily a performance group, emphasis will be on musicianship and careful group performance. The group performs periodically throughout the year in concert or for local community groups. Course is repeatable to four credits. (1.1) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

**MUS 113 Chamber Vocal Ensemble (1)**

**Prerequisite:** Consent of instructor

Repertoire of outstanding choral works for small ensemble. Three to four concerts annually. Rehearses two times each week. Repeatable to four credits. (1.1) On Demand

Proficiency Credit Not Available
Pass/No Credit Not Available

**MUS 114 Show Choir (1)**

**Prerequisite:** Consent of instructor

Repertoire of popular and Broadway show tunes. Several mini-concerts and at least one major concert per semester. Rehearses held three times per week. Repeatable to four credits. (1.1) On Demand

Proficiency Credit Not Available
Pass/No Credit Not Available

**MUS 115 Sight Singing & Ear Training I (2)**

None

The student learns to develop aural skills (pitch and rhythm) in order to read, hear, and sight-sing music. Class time is spent in singing melodies, practicing rhythms, and taking melodic and rhythmic dictation. (1.1) On Demand

Proficiency Credit Available
Pass/No Credit Not Available

**MUS 116 Musical Theater (1)**

**Prerequisite:** Audition

Presentation of a musical play during the semester, with multiple performances. Approximately six to eight weeks of rehearsals with performances over several weekends. Repeatable to four credits. (1.1) Fall, Spring, Summer

Proficiency Credit Not Available
Pass/No Credit Not Available

**MUS 120 Brass Ensemble (1)**

**Prerequisite:** Consent of instructor

Development of greater playing skills and sight reading. Repeatable up to a maximum of four credits. (1.1) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

**MUS 121 Woodwind Ensemble (1)**

**Prerequisite:** None

Development of greater playing skills and sight reading. Repeatable to a maximum of four credits. (1.1) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available

**MUS 122 Percussion Ensemble (1)**

**Prerequisite:** None

Development of greater playing skills and sight reading. Repeatable to a maximum of four credits. (1.1) Fall, Spring

Proficiency Credit Not Available
Pass/No Credit Not Available
MUS 123 String Ensemble (1)  
**Prerequisite:** Audition or consent of instructor  
Development of greater playing skills and sight reading. Repeatable up to a maximum of four credits. (1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Not Available

MUS 124 Symphony Orchestra (1)  
**Prerequisite:** Audition or consent of instructor  
Open to all students and adults in the area who qualify. At least five concerts presented each season. Repeatable to a maximum of four credits. (1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Not Available

MUS 126 Class Piano I (2)  
**Prerequisite:** None  
Designed for beginning students with little or no experience on the piano. Fundamentals, scales, key signatures, rhythms, chord structure and playing of easy melodies. Transposition encouraged. (1.1) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Available

MUS 127 Class Piano II (2)  
**Prerequisite:** C or better in MUS 126 or consent of instructor  
More advanced work of chordal structures, modulation, transposition and ability to perform works from classical and semi-classical literature. (1.1) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Available

EDN 128 Music for the Elementary Teacher (3)  
See Education courses

MUS 128 Theory & Ear Training I (4)  
**Prerequisite:** MUS 100 or consent of instructor  
The study of music fundamentals (scales, intervals, triads, rhythm and meter), basic principles of melody and harmony, melodic composition, and four-part harmony. Approximately one-third of classroom time is used for ear training and keyboard sessions. (1.1) Fall  
Proficiency Credit Available  
Pass/No Credit Available

MUS 129 Theory & Ear Training II (4)  
**Prerequisite:** MUS 128 or placement  
A continuation of MUS 128, this course expands harmonic vocabulary to include diatonic 7th chords modulation, secondary dominants and principles of form. Four-part writing is emphasized, and ear training and keyboard exercises are continued. (1.1) Spring  
Proficiency Credit Available  
Pass/No Credit Available

MUS 140 Applied Music (1)  
**Prerequisite:** Students must be 16 or older. Students ages 15 and under may register in credit-free course, CSX 140  
Private study in music performance. Lessons are offered every semester in piano, voice, brass, woodwinds, strings, and percussion. Repeatable to a maximum of four credits. (1.1) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Available

MUS 205 Topics in Music (3)  
**Prerequisite:** None  
Study of selected topics with discussion of representative areas in music (opera, gospel, improvisation, keyboard, literature, performance, practice, arranging). Certain topics require advanced knowledge or skills; students should review the course outline or consult the instructor before enrolling. (1.1) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Available

MUS 228 Theory & Ear Training III (4)  
**Prerequisite:** MUS 129 or placement  
A continuation of MUS 129, this course continues the harmonic vocabulary employed in the period of common practice, adds studies of historically important forms, and continues ear training and keyboard exercises. (1.1) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Available

MUS 229 Theory & Ear Training IV (4)  
**Prerequisite:** MUS 228 or placement  
A continuation of MUS 228, this course completes the harmonic vocabulary of the common practice period. Compositional techniques of the Post Romantic and Contemporary periods are also studied. (1.1) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Available

MUS 240 Applied Music (1)  
**Prerequisite:** MUS 140 or consent of instructor  
Private study in music performance. Lessons are offered every semester in piano, voice, brass, woodwinds, strings, and percussion. Repeatable to a maximum of four credits. (1.1) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Available

NATURAL SCIENCES  
(See Astronomy, Biology, Chemistry, Geology, Physics, Physical Science & Zoology)

NURSE-LEGAL CONSULTANT  
(See Paralegal)
NURSING

All NUR courses numbered 100 and above, except NUR 180 and 280, may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees. NUR 180 and 280 are not included in the G.P.A. NUR 105 may only be counted in the G.P.A. for seven hours.

Special Admissions Requirements apply to the Nursing R.N. Program (see Nursing curricula).

NUR 096 Alzheimer Disease Concepts (1) (1, 0)
Prerequisite: None
This course is intended to assist those individuals who are caring for people with Alzheimer’s Disease to understand this condition and to provide nursing care. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

NUR 105 Basic Nurse Assistant Training Program (7) (6, 3)
Prerequisite: Students must have at least an eighth grade education and be at least age 16, DRP Reading Assessment score of 50 or higher or consent of Instructor (See also Nursing Currricula).

The purpose of this course is to prepare qualified nurse assistants to function as integral parts of the health care team. Principles of hygienic care, safety, infection control, body mechanics, vital signs communication, nutrition and interpersonal relationships are among the concepts included in this program. Class instruction is combined with clinical practice to prepare the nurse assistant for employment. Successful completion will entitle the student to a Basic Vocational Specialist Certificate and eligibility to take the State Competency Written Evaluation for certification. Certification is required for employment. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

THE NURSING R.N. PROGRAM

NUR 114 Common Health Challenges I (8) (6, 6)
Prerequisite: Admission to the nursing program; BIO 130, PSY 100, and NUR 116 or concurrent enrollment in BIO 130, PSY 100, and NUR 116
Recommended: HPE 112 Introduction to Health Care Vocabulary

The roles and competencies of the nurse will be introduced. Concepts examined include: nursing process, health care systems, human needs, holistic care, wellness, illness, assessment, communication and teaching/learning theory. Focus will be placed on provider of care nursing role using basic nursing skills. Responses of persons to common health problems are presented with developmental and cultural considerations. Critical thinking and management skill development is introduced. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

NUR 115 Common Health Challenges IA (6) (5, 3)
Prerequisite: Admission to the nursing program; BIO 130, PSY 100, and NUR 116 or concurrent enrollment in BIO 130, PSY 100 and NUR 116. Must be Certified Nursing Assistant.
Recommended: HPE 112 Introduction to Health Care Vocabulary

This course introduces the student who is certified as a nurse assistant (C.N.A.) to the nursing role as provider of care using basic nursing skills. The roles and competencies of the nurse will be introduced. Concepts examined include: nursing process, health care systems, human needs, holistic care, wellness, illness, assessment, communication and teaching/learning theory. Focus will be placed on provider of care nursing role using basic nursing skills. Responses of persons to common health problems are presented with developmental and cultural considerations. Critical thinking and management skill development is introduced. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

NUR 116 Pharmacology in Nursing (2) (2, 0)
Prerequisite: Admission to the nursing program; grade of C or better in BIO 130 or concurrent enrollment in BIO 130.

The student will be prepared to administer medications and intravenous fluids at the practical nurse level of competence upon completion of this course. Mastery of skills related to drug administration including drug dose calculations will be required. A foundational knowledge base will be acquired which includes how drugs are processed and utilized in the body, grouping drugs in classifications, and legal aspects of prescription, administration and record keeping. Clinical application of knowledge and skills will be expected in concurrent nursing courses. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

NUR 120 Common Health Challenges II (4.5) (3, 4.5)
Prerequisite: NUR 114 or NUR 115 and NUR 116 and ENG 101 and PSY 218 or concurrent enrollment in PSY 218 and ENG 101

The student will identify actual and/or potential alterations in health for persons across the lifespan, focusing on the adult and older adult in a variety of settings. Utilizing the nursing process, the student will demonstrate basic competencies in caring for persons with common health challenges. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

NUR 122 Caring for Women and Children (4.5) (3, 4.5)
Prerequisite: NUR 114 or NUR 115 and NUR 116 and PSY 218 and ENG 101 or concurrent enrollment in PSY 218 and ENG 101

The student will examine the impact of childbearing and wellness/illness concepts within the contemporary family. Utilizing the nursing process, the student will assist the family in health promotion and wellness behaviors and provide nursing care during the perinatal period and for common health problems of women and children. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

NUR 124 Professional Aspects of Nursing (1) (1, 0)
Prerequisite: NUR 114 or NUR 115 and NUR 116 with grade of C or better.

The profession of nursing and its historical and current contribution to society will be explored in this course. The process and purpose of licensure will be presented and the student will differentiate between levels of practice. The relationship between ethical standards and role parameters will be discussed. The professional portfolio for the practical nurse will be completed. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

NUR 212 Complex Health Challenges I (5) (3.5, 4.5)
Prerequisite: NUR 120, NUR 122, NUR 124, BIO 120, with grade of C or better or concurrent enrollment in BIO 120

The focus of this course is on providing holistic care for persons whose needs are affected by complex conditions involving circulation, oxygenation, and elimination. The nursing process is used by the nurse in the provider of care and manager of care roles for persons across the lifespan and in the context of their culture. Growth toward professional behaviors of caring, role competency, critical thinking and self-directed learner will be evidenced. Various care settings are used to enhance student experience. Concepts related to the administration of intravenous medications, intravenous therapy and blood component therapy at the professional nurse level of competence will be included. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

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NUR 214 Complex Health Challenges II (5) (3.5, 4.5)  
Prerequisite: NUR 120, NUR 122, NUR 124, BIO 120, with grade of C or better or concurrent enrollment in BIO 120  
The focus of this course is on providing holistic care for persons whose needs are affected by complex conditions of metabolism and immune function. The nursing process is used by the nurse in the provider of care and manager of care roles for persons across the lifespan and in the context of their culture. Growth toward professional behaviors of caring, role competency, critical thinking and self-directed learner will be evidenced. Various care settings are used to enhance student experience. Concepts related to the administration of intravenous medications, intravenous therapy and blood component therapy at the professional nurse level of competence will be included. (1.2) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

NUR 220 Complex Health Challenges III (4.5) (3, 4.5)  
Prerequisite: NUR 212, NUR 214, with grade of C or better and must enroll in NUR 224  
During this course students will increase their awareness of self and enhance their communication skills as they care for persons with neurological and psychiatric brain disorders. A community focus will help students understand the process of adaptation and rehabilitation as well as study cultural differences, developmental issues, family dynamics and spirituality while enhancing their use of the nursing process and roles of the nurse. The health care environment will be explored with an emphasis on resources, economics and trends. (1.2) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

NUR 222 Integritative Nursing Experience (4.5) (1.5, 9.0)  
Prerequisite: NUR 220 and NUR 224 with grade of C or better  
The focus of this course is on caring for persons whose needs are affected by complex acute and chronic conditions. It is expected that the student will integrate knowledge, skills and professional values in discussion of case studies and simulations, as well as in clinical areas. As the student performs in the roles of the nurse, growth toward the professional behaviors of caring, role competence, critical thinking and self-directed learning will be evidenced. The final four weeks of the course will consist of a clinical capstone experience in various settings. (1.2) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

NUR 224 Professional Socialization (1) (1.0)  
Prerequisite: NUR 212 and NUR 214 with a grade of C or better and must enroll in NUR 220  
The focus of this course is the development of the Member of the Profession role and management of care in community based settings. Concepts related to professionalism, role socialization, ethics and law, and skills needed to enter the workplace will be included. The student will be required to complete the portfolio for the professional level nurse which will be evaluated during this course. (1.2) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

NUR 150 Nursing Transition (1.5) (1.5, 0)  
Prerequisite: Acceptance into the nursing program as an advanced standing student  
This course is designed to facilitate the success of students entering the nursing program with advanced standing status. The student will be provided with information about the facility, student handbook, program and learning materials, review of the nursing process including the nursing health assessment, and expectations of the nursing student in the classroom and clinical settings. Students are able to interact with each other regarding their feelings, concerns and strategies for success in the nursing program. (1.6) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Not Available

NUR 180 LPN/LVN Refresher Course (3.5) (2, 4.5)  
Prerequisite: All students must be a LPN/LVN graduate; must have a current Illinois license or have applied for licensure or have a letter from the state of Illinois Department of Professional Regulation indicating that this course is needed for relicensure. CPR certification is required.  
Recommended: Malpractice insurance  
This course is a review and update of nursing for the licensed practical nurse who has been inactive. It includes basic skills, nursing through the life span, new concepts and procedures used in nursing today. Classroom instruction is combined with clinical practice. (1.6) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Not Available

NUR 280 Nurse Refresher Course (5.5) (3.5, 6)  
Prerequisite: Students must be an RN with a current Illinois license or have applied for licensure or have a letter from the state of Illinois Department of Professional Regulation indicating that this course is needed for relicensure. CPR certification is required  
Recommended: Malpractice insurance  
This course is designed for inactive registered nurses planning to re-enter nursing practice. It includes a review of basic nursing skills, a review of disease processes and the current nursing interventions. Also included are identification of current trends in nursing and the expanded role of the nurse in assessment, care planning and health teaching. (1.6) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Not Available

NUR 290 Special Topics in Nursing (Variable Credit .5-3) (.5-3, 0)  
Prerequisite: None  
Designed to satisfy specific needs or interests of nurses in the community. The topic of each course will reflect the rapidly changing skills and knowledge required to function in today's health care settings. Repeatable to nine credits. (1.6) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available

OFFICE ADMINISTRATION TECHNOLOGY

All OAT and OTS courses numbered 100 and above, except OAT 119, may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees. OAT 119 is not counted in the G.P.A.

OAT 100 Professional Development Skills (1) (1, 0)  
Prerequisite: None  
In this course, students concentrate on skills needed by today's workforce such as time management, personal management, human relations, professionalism, and career assessment and exploration. (1.2) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Available

OAT 101 Keyboarding & Document Production I (3) (3, 0)  
Prerequisite: None  
Students will use computers to learn the alphanumeric keyboard by touch; will develop speed and accuracy skills; and will develop skill in the formatting of business letters, memos, tables, and reports. Computers are used in all sections. (1.2) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Available
OAT 102 Document Production II (3) (3, 0)
Prerequisite: Grade of C or better in OAT 101 or OAT 106 or successful completion of placement test
Students continue using computers to develop speed and accuracy in both production and straight copy. Emphasis is placed on formatting business letters, memos, tables, forms and reports. Proofreading, editing, and language skills are reinforced. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

OAT 103 Document Production III (3) (0, 6)
Prerequisite: Grade of C or better in OAT 102 or successful completion of placement test
Students develop an employable production rate for the keyboarding of business letters, legal documents, reports, and statistical data. Emphasis is placed on correctly prioritizing work and developing a high degree of speed and accuracy. Instruction is individualized. Students work independently on computers in the Office Technology Instructional Center. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

OAT 104 Document Production IV (2) (2, 0)
Prerequisite: Grade of C or better in OAT 101 or OAT 105 or successful completion of placement test
In this course, skill is developed in keyboarding speed and accuracy and in the keyboarding of business letters, memos, tables, and reports. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

OAT 106 Document Production I (2) (2, 0)
Prerequisite: Grade of C or better in OAT 101 or OAT 102 or successful completion of placement test
In this course, skill is developed in keyboarding speed and accuracy and in the keyboarding of business letters, memos, tables, and reports. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

OAT 108 Speedwriting I (3) (3, 0)
Prerequisite: Grade of C or better in OAT 101 or OAT 102 or successful completion of placement test
Students learn an alphabetic shorthand system based on the letters of the alphabet and common punctuation marks. All theory is presented and students develop entry-level dictation speeds. Speedwriting is designed for individuals who want to learn shorthand for personal or professional use. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

OAT 109 Speedwriting II (3) (3, 0)
Prerequisite: Grade of C or better in OAT 108 and OAT 101 or successful completion of placement examination
This course reviews theory presented in OAT 108, Speedwriting I, and increases dictation speed. In addition, major emphasis is placed on developing language arts skills and producing mailable documents. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

OAT 110 Introduction to Legal Terminology (3) (3, 0)
Prerequisite: Grade of C or better in OAT 117 or BUS 101 with C or better
This is an introductory course, including an overview of the judicial system, ethics, legal terminology, legal writing, investigation, and law office procedures. It includes extensive discussion of the role of paralegals in the legal system and how to prepare for employment as a legal assistant. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

OAT 115 Administration Office Procedures (3) (3, 0)
Prerequisite: Grade of C or better in OAT 100 and OAT 103 and OAT 128
For those who wish additional knowledge for top office administration positions. Units include human relations, office protocol, office administration duties, records management, traditional mail and e-mail, telephone techniques, receptionist duties, job applications, and travel and business meeting procedures. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

OAT 117 Introduction to Legal Terminology (3) (3, 0)
Prerequisite: Grade of C or better in BUS 101 or OAT 117 or BUS 101 with C or better
This is an introductory course, including an overview of the judicial system, ethics, legal terminology, legal writing, investigation, and law office procedures. It includes extensive discussion of the role of paralegals in the legal system and how to prepare for employment as a legal assistant. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

OAT 120 Word Processing Applications I (1.5) (1.5, 0)
Prerequisite: None
This course is designed to meet today's business needs for word processing applications on the personal computer. Students choose from current word processing software used in the community and surrounding area businesses. See current schedule for listing of word processing software. Course is repeatable to a maximum of 4.5 credit hours. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

OAT 121 Medical Terminology I (3) (3, 0)
Prerequisite: Grade of C or better in OAT 122 or 70% or better score on proficiency examination
This course is designed to build on knowledge acquired in Medical Terminology I. A systems approach to presentation of diagnostic, sym pathetic, and operative terms will again be employed, but with a focus on those terms that derive from (largely) Latin or Greek whole words and eponyms. Additionally, terms associated with diagnostic testing, laboratory, radiology, pharmacology, and various other specialty areas will be presented. Common medical abbreviations, acronyms, and symbols will be discussed as they pertain to each system presented. Emphasis will be placed on correct spelling and pronunciation of terms. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

OAT 122 Medical Terminology I (3) (3, 0)
Prerequisite: Grade of C or better in OAT 123 or 70% or better score on proficiency examination
This course is designed to build on knowledge acquired in Medical Terminology I. A systems approach to presentation of diagnostic, sympathetic, and operative terms will again be employed, but with a focus on those terms that derive from (largely) Latin or Greek whole words and eponyms. Additionally, terms associated with diagnostic testing, laboratory, radiology, pharmacology, and various other specialty areas will be presented. Common medical abbreviations, acronyms, and symbols will be discussed as they pertain to each system presented. Emphasis will be placed on correct spelling and pronunciation of terms. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

OAT 123 Medical Terminology II (3) (3, 0)
Prerequisite: Grade of C or better in OAT 122 or 70% or better score on proficiency examination
This course is designed to build on knowledge acquired in Medical Terminology I. A systems approach to presentation of diagnostic, sympathetic, and operative terms will again be employed, but with a focus on those terms that derive from (largely) Latin or Greek whole words and eponyms. Additionally, terms associated with diagnostic testing, laboratory, radiology, pharmacology, and various other specialty areas will be presented. Common medical abbreviations, acronyms, and symbols will be discussed as they pertain to each system presented. Emphasis will be placed on correct spelling and pronunciation of terms. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

OAT 126 Word Processing Applications II (1.5) (1.5, 0)
Prerequisite: None
Recommended: Keyboarding skills highly recommended or concurrent enrollment in OAT 101 or OAT 105
This course is designed to meet today's business needs for word processing applications on the personal computer. Students choose from current word processing software used in the community and surrounding area businesses. See current schedule for listing of word processing software. Course is repeatable to a maximum of 4.5 credit hours. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

OAT 127 Word Processing Applications III (1.5) (1.5, 0)
Prerequisite: Grade of C or better in OAT 126
This course provides practical application experience and intermediate instruction for the particular word processing software chosen. See current schedule for listing of word processing software. Course is repeatable to 4.5 credits. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available
COURSE DESCRIPTIONS

OAT 128 Word Processing Applications III (1.5) (1.5, 0)
Prerequisite: Grade of C or better in OAT 127
This course provides practical advanced application experience and advanced instruction for the particular word processing software chosen. See current schedule for listing of word processing software. Course is repeatable to six credit hours. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Available

OAT 130 Software Applications for the Office (3) (3.0)
Prerequisite: Grade of C or better in OAT 101 or OTS 100 or concurrent enrollment in OAT 101 or OTS 100 or successful completion of placement test
This course introduces students to office and home-based business applications using word processing, spreadsheet, database, presentation graphics, and electronic mail applications. Integrating information within the applications is also included. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Available

OAT 132 Applied Business Language Skills (3) (3.0)
Prerequisite: None
Recommended: Keyboarding skills recommended or concurrent enrollment in OTS 100 or OAT 101
This course emphasizes business language skills that are commonly applied in the business environment. Basic grammar, usage, and style rules are reviewed using an up-to-date business reference manual. In addition, special emphasis is placed on editing and proofreading procedures as they apply to business documents. (1.2) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Available

OAT 135 Machine Transcription I (3) (1.4)
Prerequisite: Grade of C or better in OAT 102 and OAT 126 and OAT 132
This course is designed to develop basic machine transcription skills. Spelling, punctuation, grammar, word usage, proofreading, and current business procedures will be stressed while student is building transcription speed and accuracy. Students work independently on computers in the Office Technology Instructional Center. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 136 Machine Transcription II (3) (0, 6)
Prerequisite: Grade of C or better in OAT 127 & OAT 135
This course is a continuation of OAT 135 and is designed to increase the student’s knowledge and expertise with machine transcription within the executive, medical, or legal field. Students work independently on computers in the Office Technology Instructional Center. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 137 Office Applications I (1) (0, 2)
Prerequisite: Grade of C or better in OAT 128 and OAT 130 or OAT 141 and OAT 143
Students apply software skills learned in basic instruction and applications modules for completing tasks ranging from simple correspondence to complex merging and graphics. Students work independently in the Office Technology Instructional Center. Course is repeatable to three credits. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 138 Office Applications II (1) (0, 2)
Prerequisite: Grade of C or better in OAT 137
This course is a continuation of OAT 137. Students will continue to apply software skills learned in basic instruction and applications modules for completing tasks ranging from simple correspondence to complex merging and graphics to spreadsheet and data base management. Students work independently in the Office Technology Instructional Center. Course is repeatable to three credits. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 140 Word Processing I (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OTS 100 or OAT 101 or successful completion of placement test
This course includes hands-on instruction in Word Processing applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 141 Spreadsheet I (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OTS 100 or OAT 101 or successful completion of placement test
This course includes hands-on instruction in Spreadsheet applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 142 Presentations I (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OTS 100 or OAT 101 or successful completion of placement test
This course includes hands-on instruction in Presentations applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 143 Database I (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OTS 100 or OAT 101 or successful completion of placement test
This course includes hands-on instruction in Database applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 144 Operating Systems I (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OTS 100 or OAT 101 or successful completion of placement test
This course includes hands-on instruction in Operating Systems applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 145 Desktop Publishing I (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OTS 100 or OAT 101 or successful completion of placement test
This course includes hands-on instruction in Desktop Publishing applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available
OAT 146 Personal Information Management I (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OAT 101 or successful completion of placement test
This course includes hands-on instruction in Personal Information Management applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 147 Special Topics: Applications/Ofc I (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OAT 101 or successful completion of placement test
This course includes hands-on instruction in basic software applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 240 Word Processing II (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OAT 140 or successful completion of placement test
This course includes hands-on instruction in advanced Word Processing applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 241 Spreadsheet II (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OAT 141 or successful completion of placement test
This course includes hands-on instruction in advanced Spreadsheet applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 242 Presentations II (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OAT 142 or successful completion of placement test
This course includes hands-on instruction in advanced Presentations applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 243 Database II (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OAT 143 or successful completion of placement test
This course includes hands-on instruction in advanced Database applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 244 Operating Systems II (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OAT 144 or successful completion of placement test
This course includes hands-on instruction in advanced Operating Systems applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 245 Desktop Publishing II (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OAT 145 or successful completion of placement test
This course includes hands-on instruction in advanced Desktop Publishing applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 246 Personal Information Management II (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OAT 146 or successful completion of placement test
This course includes hands-on instruction in advanced Personal Information Management applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 247 Special Topics: Applications/Ofc II (1) (0-1, 0-2)
Prerequisite: Grade of C or better in OAT 147 or successful completion of placement test
This course includes hands-on instruction in advanced software applications as they apply to the skills needed by office support personnel. Course is repeatable to three credits (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

OAT 250 MOS Word Expert (1.5) (1, 1)
Prerequisite: Grade of C or better in OAT 240 or OAT 128 or consent of instructor
This course prepares individuals for the Microsoft Office Specialist exams in Word. Hands-on projects and testing simulations will be completed. Course is repeatable to 4.5 credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

OAT 251 MOS Excel Expert (1.5) (1, 1)
Prerequisite: Grade of C or better in OAT 241 or CIS 143 or consent of instructor
This course prepares individuals for the Microsoft Office Specialist exams in Excel. Hands-on projects and testing simulations will be completed. Course is repeatable to 4.5 credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

OAT 252 MOS Powerpoint Expert (1.5) (1, 1)
Prerequisite: Grade of C or better in OAT 242 or consent of instructor
This course prepares individuals for the Microsoft Office Specialist exams in PowerPoint. Hands-on projects and testing simulations will be completed. Course is repeatable to 4.5 credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available

OAT 253 MOS Access Expert (1.5) (1, 1)
Prerequisite: Grade of C or better in OAT 243 or CIS 142 or consent of instructor
This course prepares individuals for the Microsoft Office Specialist exams in Access. Hands-on projects and testing simulations will be completed. Course is repeatable to 4.5 credits. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Available
OTS 100 Keyboarding (1)  
Prerequisite: None  
Keyboarding is a skill needed today by all people and all professions. This course introduces the alphanumeric touch system of keyboarding. Keyboarding is the current term for typewriting. The touch system means keyboarding without looking at the keyboard. (1.2) Fall, Spring, Summer  
Proficiency Credit Available  
Pass/No Credit Available

OTS 101 Keyboarding-Speed and Accuracy (2)  
Prerequisite: C or better in OTS 100 or OAT 101 or successful completion of placement test  
This course is designed to help students increase keyboarding speed and accuracy. Student's skill level is assessed at the beginning of the class and course outcomes are determined individually. Course is repeatable to four credits. (1.2) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Available

OTS 105 Office Data Entry Skills (3)  
Prerequisite: Grade of C or better in OAT 101 or OTS 100 or successful completion of placement test  
This course develops data entry skills using various business applications on the personal computer. An overview of business applications concepts is covered prior to entering data. Emphasis is placed on developing speed and accuracy in entering data. Variable entry until eighth week of semester. (1.2) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Available

OFFICE ADMINISTRATION-GENERAL STUDIES

The following OAT course is not intended for transfer and not applicable to any ECC degree.

OAT 119 Office Skills Refresher (1)  
Prerequisite: Grade of C or better in OTS 100 or OAT 101 or successful completion of placement test  
Students are able to work individually to improve present skills and to learn new skills. Units include, but are not limited to, operation of transcribing machines, shorthand development, speed development, improvement of keyboarding skills, and review of basic language skills. Learning outcomes are individualized based on the student's goals and instructor's recommendations. (1.6) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Available

OFFICE ASSISTING  
(See Office Administration Technology)

PAINTING  
(See Art)

PARALEGAL

All PAR courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

PAR 101 Introduction to Legal Technology (3)  
Prerequisite: DRP reading assessment score of 48 or higher, or English ACT score of 20 or higher; or successful completion of ENG 101 or BUS 101 with C or better  
This is an introductory course, including an overview of the judicial system, ethics, legal terminology, legal writing, investigation, and law office procedures. It includes extensive discussion of the role of paralegals in the legal system and how to prepare for employment as a legal assistant. (1.2) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available  
Note: This course is offered concurrently as OAT 117. The student must decide whether to earn credits in Paralegal (PAR 101) or Office Administration Technology (OAT 117) prior to enrolling.

PAR 103 Legal Writing (3)  
Prerequisite: Grade of C or better in PAR 101 or concurrent enrollment in PAR 101  
Students are introduced to basic concepts of legal research in the course, using state law materials. Assignments including case briefs, client letters, legal memoranda, and appellate briefs teach students to analyze and communicate legal authority, in proper format. (1.2) Fall  
Proficiency Credit Not Available  
Pass/No Credit Not Available

PAR 108 Family Law (3)  
Prerequisite: PAR 101  
This course examines Illinois domestic relations law. Students are required to analyze the relevant statutes, identify tax consequences, and draft pleadings for dissolution of marriage and other family law matters. (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

PAR 136 Law Office Practice (3)  
Prerequisite: None  
This course is designed to familiarize students with routine law office procedures, services available to law offices, and equipment and software used in law offices. (1.2) Summer  
Proficiency Credit Not Available  
Pass/No Credit Not Available

PAR 201 Litigation (3)  
Prerequisite: PAR 101  
This course explores civil procedure and pleading, from interviewing a client through post-trial proceedings, including discovery and file management. Students are required to prepare several written assignments. (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

PAR 203 Real Property Law (3)  
Prerequisite: PAR 101  
This course includes study of the law, procedures, and documents related to the sale and lease of real estate. The focus is on functions normally performed by a law office, lender, or title company, rather than the responsibilities of a broker or sales agent. (1.2) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available
COURSE DESCRIPTIONS

PAR 204 Legal Research (3) (3, 0)
Prerequisite: Grade of C or better in PAR 103 or concurrent enrollment in PAR 103
This course requires extensive independent legal research and analysis, using federal and multistate materials. Students are required to prepare an appellate brief, among other assignments, and to use computerized legal research. The course requires use of off-campus law libraries. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

PAR 205 Wills, Trusts and Probate (3) (3, 0)
Prerequisite: None
This course teaches students to prepare estate planning documents, handle probate estates, transfer assets without probate, and administer trusts, under the supervision of an attorney. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

PAR 207 Criminal Law Procedure (3) (3, 0)
Prerequisite: PAR 101
This course focuses on the Illinois criminal law statute and Constitutional rights applicable to criminal prosecutions. Students are introduced to procedures relating to arrest, investigation, and trial, and to the corrections system. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

PAR 209 Taxation I (3) (3, 0)
Prerequisite: None
This course focuses on federal income tax for individuals, with some attention to taxation of businesses and to state income tax. Students learn preparation of forms as well as applicable administrative procedures. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

PAR 221 Tort and Insurance Law (3) (3, 0)
Prerequisite: PAR 101
This course focuses on the elements of torts and litigation procedures relevant to tort suits, with an emphasis on medical evidence. Various aspects of insurance law and claims procedures are also discussed. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

PAR 223 Business Organizations (3) (3, 0)
Prerequisite: None
This course focuses on the formation and maintenance of corporations and limited liability companies under Illinois law. Students must prepare applicable forms. Sole proprietorships, partnerships and other forms of business are also discussed. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Not Available

PAR 225 Administrative Law (3) (3, 0)
Prerequisite: None
This course involves study of substantive law relating to state and federal administrative agencies as well as procedures and forms for proceedings before particular agencies. (1.2) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

PAR 235 Internship (1-3) (0, 5-15)
Prerequisite: Grade of C or better in PAR 105 and PAR 201
This course requires students to work in a law office, legal department, or governmental agency, under the supervision of an attorney, approximately 5 (for one hour of credit) to 15 hours (for three hours of credit) per week for one semester. Students will work with an instructor, who will design a program appropriate to the environment in which the student will work. Students will be required to keep a journal, detailing the work they have done, to be verified by the supervising attorney. (1.2) Summer
Proficiency Credit Available
Pass/No Credit Not Available

PAR 237 Special Topics in Legal Assisting (Variable Credit 1-3) (1-3, 0)
Prerequisite: None
Application of legal assisting principles to specific problems through case studies, simulation, special projects, or problem-solving procedures. No topics/problem will be offered more than twice in three years. Repeatable to nine credits (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

PERSONAL TRAINER

All PTR courses numbered 100 and above may be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

PTR 101 Personal Trainer I (3) (3, 0)
Prerequisite: Grade of C or better in BIO 110 or concurrent enrollment in BIO 110
This course is the first in a series of courses designed to prepare individuals for the National Strength and Conditioning Association (NSCA) Personal Trainer certification. The first course covers content in the following areas: structure and function of the muscular, respiratory, and circulatory systems; orthopedic concerns in exercise; emergency and legal issues; training special populations; and nutrition and weight management issues. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

PTR 102 Personal Trainer II (5) (5, 0)
Prerequisite: Grade of C or better in PTR 101 and BIO 130 or concurrent enrollment in BIO 130
This course is the second in a series of courses designed to prepare individuals for the National Strength and Conditioning Association (NSCA) Personal Trainer certification. The second course covers content in the following areas: anaerobic and aerobic training adaptations; aerobic exercise prescription; weight training exercise prescription; biomechanical concepts; free weight and machine exercise techniques; client consultation and fitness assessment. (1.2) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

PHILOSOPHY
(See Humanities)

PHLEBOTOMY
(See Clinical Laboratory Technology)

PHOTOGRAPHY
(See Art)
**PHYSICAL EDUCATION**

(Includes co-educational, health, and classes for men, women, and P.E. majors.)

Only four hours of PHC, PHM and PHW courses numbered 100 and above may be applied to the Associate in Arts and Associate in Science Degrees.

All PHC, PHM, PEM, PHR, and PHW courses numbered 100 and above may be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

**PHYSICAL EDUCATION-COEducATIONAL**

**PHC 109 Physical Fitness I (Variable Credit .5-3)**  
(0, 1-6)  
Prerequisite: None  
This activity based course is designed to teach students the basic principles of fitness and wellness. The fitness center offers orientations on the proper use of the aerobic, Cybex strength training and free weight equipment as well as instruction on beginning an exercise program. This course does not have a scheduled class time; students may come in to work out any time the fitness center is open. This course is repeatable to three credits. (1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Available

**PHC 110 Physical Fitness II (Variable Credit .5-3)**  
(0, 1-6)  
Prerequisite: PHC 109  
This course is designed to maintain and/or improve upon the level of fitness reached in Physical Fitness I. This course does not have a scheduled class time; students may come in to work out any time the fitness center is open. This course is repeatable to three credits. (1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Available

**PHC 113 Tennis I (Variable Credit .5-1)**  
(0, 1-2)  
Prerequisite: None  
Emphasis on individual skills including forehand and backhand strokes and serving. Course is repeatable to four credits. (1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Available

**PHC 115 Intermediate Tennis (Variable Credit .5-1)**  
(0, 1-2)  
Prerequisite: PHC 113  
Designed to develop advanced skills, knowledge and attitudes for effective court play. Course is repeatable to four credits. (1.1) Fall, Spring, Summer  
Proficiency Credit Not Available  
Pass/No Credit Available

**PHC 116 Beginning Volleyball (Variable Credit .5-1)**  
(0, 1-2)  
Prerequisite: None  
Introduction to the fundamental skills of power volleyball. Emphasis will be on the development of individual skills with ample opportunity for team play. Repeatable to one credit (1.1) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Available

**PHC 133 Scuba & Skin Diving (1)**  
(0, 2)  
Prerequisite: None  
Trains students in use and care of equipment. Covers techniques and proper safety procedures. Enables student to develop an awareness and understanding of personal limitations relative to the sport. (1.1) On Demand  
Proficiency Credit Available  
Pass/No Credit Not Available

**PHC 167 Free Exercise (1)**  
(0, 2)  
Prerequisite: None  
This course is contract based and permits the student to log in hours in both the Fitness Center and an outside activity that is not offered by the college. The student is required to log in a predetermined number of hours in the Fitness Center and may supplement his/her total with a preapproved activity. (1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Available

**PHC 169 Recreational Sports (Variable Credit .5-1)**  
(0, 1-2)  
Prerequisite: None  
A contract based independent study course to provide the student with an opportunity to participate in an activity that is not offered at the college. The activity must be preapproved by a fitness center instructor. This course is repeatable to one credit. (1.1) Fall, Spring  
Proficiency Credit Not Available  
Pass/No Credit Available

**PHYSICAL EDUCATION-HEALTH**

**PHR 101 Health (3)**  
(3, 0)  
Prerequisite: None  
Basic concepts of holistic health are introduced in this course. The interrelationship of the mind, body, and spirit are emphasized in such topics as: exercise, nutrition, aging, stress, substance abuse, violence, personal relationships, and major health problems. (1.1) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

**PHR 102 First Aid & Safety (3)**  
(3, 0)  
Prerequisite: None  
This course is designed to develop the knowledge and skills of CPR and first aid capabilities for students who may be required to provide the initial emergency care necessary to sustain life until the victim of an accident or sudden illness is cared for by qualified personnel. American Red Cross advanced first aid certificates will be issued upon successful completion of this course. (1.1) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

**PHR 105 Conference Seminar: Health Education (Variable Credit .5-1)**  
(1.1, 0)  
Prerequisite: None  
This course is designed to allow for a more concentrated presentation of current issues which appear to be of sincere interest or concern to our community. The structure will allow use of current media materials, knowledgeable lectures, group discussion and audiovisual materials. Repeatable to one credit (1.1) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Not Available
PHYSICAL EDUCATION-MEN

PHM 103 Basketball (1) (0, 2)
Prerequisite: None
Emphasis on the development of individual skills and knowledge of the rules. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

PHM 104 Advanced Basketball (1) (0, 2)
Prerequisite: PHM 103
Emphasis on team offense and defense. Team play will be stressed by actual competition. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

PHM 183 Weight Training (1) (0, 2)
Prerequisite: None
This course is designed to increase the level of physical fitness of the student while applying weight training principles and techniques. Students are encouraged to use these principles to set and pursue individual goals. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Available

PHYSICAL EDUCATION-WOMEN

PHW 104 Basketball (1) (0, 2)
Prerequisite: None
Development of skills and strategy. Emphasis on the fundamentals of individual and team play. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

PHYSICAL EDUCATION-P.E. MAJORS

PEM 111 Introduction to Physical Education (3) (3, 0)
Prerequisite: None
This course is designed to introduce the disciplines of physical education and sport. Emphasis will be placed on the development, philosophy, and future direction of physical education as well as traditional and new career opportunities in the field. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

PEM 160 Foundations of Physical Education (3) (2, 2)
Prerequisite: None
Designed to give the student a better understanding of exercise and its effect on the body. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

PEM 220 Physical Education at the Elementary Level (3) (2, 2)
Prerequisite: None
This course is an introduction to elementary school physical education activities and curriculum with an emphasis on understanding developmental levels of children, classroom management, and instruction. (1.1) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

PEM 230 Practicum in Physical Education (3) (2, 5)
Prerequisite: None
Emphasis placed on teaching these skills with opportunity to learn their history and rules more thoroughly. Coeducational. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

PHYSICAL SCIENCE
(See Science)

PHYSICS

PHY 111 fulfills the physical sciences requirement and the lab science requirement for the Associate in Arts, Associate in Science, Associate in Fine Arts and Associate in Engineering Science Degrees.

PHY 101 fulfills the physical science requirement and the lab science requirement for the A.A., A.S. and A.F.A. Degrees.

All PHY courses numbered 100 and above, except PHY 105 and 113, may be used to fulfill the lab science requirement in the Associate in Liberal Studies Degrees.

All PHY courses numbered 100 and above may be used to fulfill the math/science requirement in the Associate of Applied Science Degree.

All PHY courses numbered 100 and above may also be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

PHY 101 General Physics (5) (3, 4)
Prerequisite: MTH 114
Recommended: For students in liberal arts and pre-professional programs
Study of the natural laws of linear and circular motion and the forces that cause these motions. Includes study of heat energy and sound energy as well as conditions under which forces produce equilibrium. Discussions, demonstrations, lectures and student laboratory work. (1.1) Fall
Fulfills the ECC/IAI General Education/Physical Sciences requirement.
IAI Course Number: P1 900L
Proficiency Credit Available
Pass/No Credit Available

PHY 102 General Physics (5) (3, 4)
Prerequisite: PHY 101
Recommended: For students in liberal arts and pre-professional programs
Comprehensive study of light emission and behavior, principles of optical devices, electricity and magnetism followed by an introduction to electronics and nuclear energy. (1.1) Spring
Proficiency Credit Available
Pass/No Credit Available

PHY 105 Technical Physics (4) (2, 4)
Prerequisite: MTH 107 or MTH 098 or grade of C or better in two years high school algebra or consent of instructor
One-semester course designed for students in any of the technical programs. Includes study of forces and motion, vectors, heat, sound and fluid mechanics. Demonstrations, discussions and student laboratory experiments. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Available
COURSE DESCRIPTIONS

PHY 111 Engineering Physics (5)  
Prerequisite: MTH 133 or consent of instructor
For all students planning careers in engineering or in any of the physical sciences. Topics include mechanics (kinematics, Newton's 3 laws, work and energy, conservation of linear momentum, angular momentum, rotational dynamics, gravitation and Kepler's law, and harmonic motion) and heat and fluids (laws of thermodynamics, ideal gases and thermal properties, Kinetic theory of gases, and fluid mechanics). Lectures, discussions, problem-solving and student laboratory experiments. (1.1) Fall
Fulfills the ECC/IAI General Education/Physical Science requirement. IAI Course Number: P2 900L
Proficiency Credit Available
Pass/No Credit Available

PHY 112 Engineering Physics (5)  
Prerequisite: PHY 111
Second semester for students planning careers in engineering or any of the physical sciences. Topics include electricity and magnetism (charge; laws of Gauss, Ampere, and Faraday; magnetic properties; electromagnetic waves; and Maxwell's equations) and optics and modern physics (wave motion and sound, optics, and introduction to modern physics). Lectures, discussions, problem-solving and student laboratory experiments. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Physical Science requirement. IAI Course Number: P2 900L
Proficiency Credit Available
Pass/No Credit Available

PHY 113 Modern Physics (1)  
Prerequisite: PHY 112
This course completes the material of PHY 111 and 112. It covers the phenomena which led to the description of the atom, the Bohr atom, and the beginning of quantum mechanics. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

PHY 115 Applied Physics for Electronics I (3)  
Prerequisite: C or better in EMF 114, or equivalent, or consent of instructor
Provides a broad coverage of the physical principles in mechanics needed to understand basic technology associated with electronics (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

PHY 116 Applied Physics for Electronics II (3)  
Prerequisite: C or better in PHY 115, or equivalent, or consent of instructor
Provides a broad coverage of the physical principles in the areas of matter, heat and thermodynamics, electricity and magnetism, optics and modern physics needed to understand basic technology associated with electronics. (1.2) Fall, Spring, On Demand
Proficiency Credit Available
Pass/No Credit Available

PHYSIOLOGY
(See Biology)

PLASTICS
(See Industrial Manufacturing Technology)

POLITICAL SCIENCE

POS 150, 151, 152, 250, 251 and 253 may be used to fulfill the social science requirement in the Associate in Arts, Associate in Science, Associate in Fine Arts and Associate in Engineering Science Degrees.

All POS courses numbered 100 and above may be used to fulfill the social science requirement in the Associate in Liberal Studies and Associate of Applied Science Degrees.

ADVANCED POLITICAL SCIENCE PLACEMENT

Based on the score received on the Advanced Placement (AP) Examination, credit is available for POS 150 (AP, 3).

POS 141 Topics in Government (Variable Credit 1-3)  
Prerequisite: None
Designed to introduce the student to the complexities and challenges involved in a disciplined study of government. Each topical section will concentrate on an intensive study and investigation of a particular topic in political science. Repeatable to twelve credits. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

POS 150 American Government, National (3)  
Prerequisite: None
Designed to introduce the beginning student to the problems of government with particular reference to the experience and practices of the United States. A study is made of the historical origin, the constitutional basis, the structure, powers and functions of the national government. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Social Sciences requirement. IAI Course Number: S5 900
Proficiency Credit Available
Pass/No Credit Available

POS 151 American Government, State and Local (3)  
Prerequisite: None
Study of state, county and municipal government with emphasis on the structure and problems of government in Illinois. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Social Sciences requirement. IAI Course Number: S5 902
Proficiency Credit Not Available
Pass/No Credit Not Available

POS 152 Principles of Political Science (3)  
Prerequisite: None
This course offers an introduction to the principles, theories and methods of political science, focusing on the nature and development of political science as a discipline, political processes, political institutions and the interrelationships between elements in varied political systems. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Social Sciences requirement. IAI Course Number: S5 903
Proficiency Credit Not Available
Pass/No Credit Not Available
COURSE DESCRIPTIONS

POS 219 Honors Seminar in Government (1) (1.0)
Prerequisite: None
Recommended: Honors status
A seminar which complements a particular government course designed to provide the opportunity for study of the course material in greater depth, more sophisticated inquiry or methodology and/or more penetrating research. The student must qualify for honors status. Course is repeatable to three credits. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

POS 250 Comparative Political Systems (3) (3.0)
Prerequisite: None
Comparative study of European political systems with other countries in Asia, Africa and Latin America. Attention will be given to problems, institutions and political processes of the governments studied. (1.1) Spring
Fulfills the ECC/IAI General Education/Social Sciences requirement.
IAI Course Number: SS 905
Proficiency Credit Not Available
Pass/No Credit Not Available

POS 251 International Relations (3) (3.0)
Prerequisite: None
Examination of factors affecting international politics including imperialism, balance of power, sovereignty and international cooperation. Emphasis will be given to contemporary world problems and their historic development. Issues concerning gender, class, race and ethnicity will be analyzed with an international focus. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Social Sciences requirement.
IAI Course Number: SS 904N
Proficiency Credit Not Available
Pass/No Credit Not Available

POS 253 Non-Western Comparative Government (3) (3.0)
Prerequisite: None
This course offers a comparative examination of the political culture and systems of selected non-western countries, including political ideologies, common governmental problems, causes of political stability, instability and revolution and techniques of political analysis. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Social Sciences requirement.
IAI Course Number: SS 906N
Proficiency Credit Not Available
Pass/No Credit Not Available

POS 297 Independent Study in Government (Variable Credit 1-3) (1-3.0)
Prerequisite: Consent of instructor
The student is to have identified a special study project and request advice and direction from the political science faculty. The program will be carried out under the direction of one or more faculty members who will modify the proposal in accordance with departmental requirements for the credit involved. Repeatable three times to 12 credits. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

PROFESSIONAL NURSING
(See Nursing)

PSYCHIATRIC REHABILITATION
(See Human Services)

PSYCHOLOGY

PSY 100 Introduction to Psychology (3) (3.0)
Prerequisite: None
Introductory analysis of human behavior with emphasis on practical application of the basic principles of everyday situations. Areas covered include learning, intelligence, memory, sensation, perception, emotions, personality development, group psychology and psychotherapy. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Behavioral Sciences requirement.
IAI Course Number: S6 900
Proficiency Credit Available
Pass/No Credit Not Available

PSY 201 Experimental Psychology (3) (1, 4)
Prerequisite: PSY 100 or consent of instructor
A laboratory course to give students a basic understanding of the research behind the theories explored in PSY 100. Designed to give hands-on experience with some of the equipment and issues involved when doing research with humans. Some of the topic areas covered are: learning and memory, visual perception, biofeedback, social psychology. For psychology majors or any student who found PSY 100 interesting and enjoys being active in the learning process. (1.1) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

PSY 210 Personality (3) (3.0)
Prerequisite: PSY 100 or consent of instructor
An introductory treatment of some of the major theories about the structure, dynamics and development of the human personality. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

PRACTICAL NURSING
(See Nursing)

PRINTMAKING
(See Art)
PSY 211 Educational Psychology (3) (3, 0)
Prerequisite: PSY 100 and PSY 212 or PSY 213
Survey of learning psychology with emphasis on problems of special interest to teachers and others concerned with the role of education or management of the learning environment. Includes child development, motivation, intelligence, individual differences, as well as emotional and social adjustment. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

PSY 212 Child Psychology (3) (3, 0)
Prerequisite: PSY 100 or consent of instructor
Study of the many factors influencing the child's development from birth through adolescence. Particular attention is given to the role of the mother, father, family constellation and school. Basic problems of childhood and adolescence are investigated. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Behavioral Sciences requirement. IAI Course Number: S6 903
Proficiency Credit Available
Pass/No Credit Not Available

PSY 213 Psychology of Adolescence (3) (3, 0)
Prerequisite: PSY 100 or consent of instructor
Psychological development from pre- to late adolescence. Emphasis will be placed on understanding the importance of the family, friends, and heterosexual relationships, the development of attitudes, interests, and values will also be examined. (1.1) Fall
Proficiency Credit Not Available
Pass/No Credit Not Available

PSY 214 Adulthood and Aging (3) (3, 0)
Prerequisite: Grade of C or better in PSY 100 or consent of instructor
Psychological development from early adulthood through old age. Emphasis will be placed on biological, cognitive, social and personality development across adulthood. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Behavioral Sciences requirement. IAI Course Number: S6 905
Proficiency Credit Not Available
Pass/No Credit Not Available

PSY 215 Social Psychology (3) (3, 0)
Prerequisite: PSY 100 or consent of instructor
The scientific study of social factors in individual and group behavior. Topics of investigation include affiliation, social perception, attraction, attitudes, power, altruism, aggression, group structures and group dynamics. (1.1) Fall, Spring
Fulfills the ECC/IAI General Education/Behavioral Sciences requirement. IAI Course Number: S8 900
Proficiency Credit Not Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as SOC 215. The student must decide whether to earn credits in Psychology (PSY) or Sociology (SOC) prior to enrolling.

PSY 216 Abnormal Psychology (3) (3, 0)
Prerequisite: PSY 100 or consent of instructor
An inquiry into the causes, assessment and treatment of abnormal behavior. Theories and research findings are studied with a focus on factors related to normal versus deviate patterns of behavioral development. Special emphasis will be placed on various life adjustments and their role in the prevention of maladaptive behaviors as stated in DSM IV. (1.1) Spring
Proficiency Credit Available
Pass/No Credit Not Available

PSY 217 Industrial/Organizational Psychology (3) (3, 0)
Prerequisite: PSY 100 or consent of instructor
This course is an introductory course to industrial/organizational psychology. The content will cover an overview and history of the area, research methods and elementary statistics, employee selection, psychological testing, performance appraisal, training and development, leadership, motivation, organizational styles and culture, working conditions, safety and health issues, and stress in the workplace. (1.1) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

PSY 218 Human Growth and Development (3) (3, 0)
Prerequisite: PSY 100 or consent of instructor
Emphasizes normal social, emotional, intellectual and physical development from the prenatal period through old age. (1.1) Fall, Spring, Summer
Fulfills the ECC/IAI General Education/Behavioral Sciences requirement. IAI Course Number: S6 902
Proficiency Credit Not Available
Pass/No Credit Not Available

PSY 220 Special Topics in Psychology (Variable Credit 1-3) (1-3, 0)
Prerequisite: PSY 100 and consent of instructor
Designed to satisfy specific needs or interest of degree programs, students, and the community. This course, however, would not necessarily be accepted by a senior institution as credit towards a major in psychology. The following guidelines are to be used in selecting topics: 1) adequate and available literature in psychology; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of psychology. Repeatable: Two times for maximum six credits. (1.1) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

PSY 225 Human Sexuality (3) (3, 0)
Prerequisite: Grade of C or better in SOC 100 or PSY 100
Study of social and psychological aspects of human sexuality. Includes sexual development, cultural influences, motivation and emotion, sex role identification, values, and decision making. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

NOTE: This course is offered concurrently as SOC 225. The student must decide whether to earn credits in Sociology (SOC) or Psychology (PSY) prior to enrolling.
PUBLIC SAFETY COMMUNICATIONS

All PSC courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

PSC 101 Public Safety Telecommunicator I (3) (3, 0) 
Prerequisite: None
A basic course which includes the first half of the state training board’s recommended curriculum for 9-1-1 telecommunicators (dispatchers). (1.2) Fall, Spring, Summer
Proficiency Credit Available Pass/No Credit Not Available

PSC 102 Public Safety Telecommunicator II (3) (3, 0) 
Prerequisite: Grade of C or better in PSC 101
A basic course which completes the second half of the state training board’s recommended curriculum for 9-1-1 telecommunicators (dispatchers). (1.2) Fall, Spring, Summer
Proficiency Credit Available Pass/No Credit Not Available

PSC 206 Public Safety Answering Point (PSAP) (3) (3, 0) 
Prerequisite: Grade of C or better in PSC 101 and PSC 102 or consent of program director, and concurrent enrollment in PSC 207
The course pulls together all information for previous PSC courses and integrates it to teach the student the process necessary for information gathering, call processing and method(s), call prioritization, and the composition of standard radio phraseology in accordance with general industry guidelines. (1.2) Fall, Spring, Summer
Proficiency Credit Available Pass/No Credit Not Available

PSC 207 Pub Saf Answering Point Application (2) (5, 3) 
Prerequisite: Grade of C or better in PSC 101 and PSC 102 or consent of program director, and concurrent enrollment in PSC 206
This course covers the application of knowledge and skills acquired through the PSC 9-1-1 program. The students will develop their skills in information gathering, call processing, call prioritization, radio phraseology and multi-skill tasking in a simulated 9-1-1 center using a Motorola CENTRACOM II radio console and associated equipment. (1.2) Fall, Spring, Summer
Proficiency Credit Available Pass/No Credit Not Available

PSC 208 Emergency Medical Dispatch (3) (3, 0) 
Prerequisite: Grade of C or better in PSC 206 and PSC 207 or consent of program director; can concurrently enroll in PSC 209
This course provides a comprehensive understanding of the relationship, structure, similarities, and the differences among the components of the Medical Priority Dispatch System (MPDS). It provides a generalist view of various response modes based on availability of resources within the community being served. Topics will include the history, philosophy, and content of the emergency medical dispatch function, the relationship regarding response protocols with law enforcement, fire services and emergency medical services, and it includes the psychological and medico-legal elements, and the medical priority rationale in dispatch protocols. (1.2) Fall, Spring, Summer
Proficiency Credit Available Pass/No Credit Not Available

PSC 209 Pub Saf Answering Point Practicum (3) (1, 10) 
Prerequisite: Grade of C or better in PSC 206 and PSC 207 and PSC 208 or consent of program director; can concurrently enroll in PSC 208. Must pass a criminal background check by the interning agency and any other requirement of the intern agency.
This course allows the student to experience the day to day activity of a public safety agency. The agency may be a public (9-1-1 center) agency or a related industry in the private sector. This experience includes rotating shifts and gaining experience in a live environment. (1.2) Fall, Spring
Proficiency Credit Available Pass/No Credit Not Available

PSC 210 Telecommunications Systems and Tech (3) (3, 0) 
Prerequisite: Grade of C or better in PSC 101 and PSC 102 or consent of program director.
This course covers the basic theory of telecommunications equipment and associated systems that are currently being used in the public safety industry and the rules and regulations that determine the operation of that equipment. The rules of entry, modification, cancellation and location procedures for Illinois’ Criminal Justice Data Network will be covered. (1.2) Fall, Spring
Proficiency Credit Available Pass/No Credit Not Available

PSC 211 Career Management (2) (2, 0) 
Prerequisite: None
This course offers a highly individualized approach to developing career management skills. Students will create resumes, write cover letters, thank you letters, complete job application forms and participate in an employment interview. Consideration will also be given to critical attitudes needed for career success. (1.2) Fall, Spring
Proficiency Credit Available Pass/No Credit Not Available

PSC 212 Legal Aspects/Pub Saf Communications (2) (2, 0) 
Prerequisite: None
This course covers the legal issues surrounding the 9-1-1 industry which includes terminology, legal processes, Tort liability, Illinois Data Practices Act, and safeguards to minimize vicarious liability for both the employee and the agency and work effectively with officers of the court. (1.2) Fall, Spring
Proficiency Credit Available Pass/No Credit Not Available

PSC 212 Legal Aspects/Pub Saf Communications (2) (2, 0) 
Prerequisite: None
This course covers the legal issues surrounding the 9-1-1 industry which includes terminology, legal processes, Tort liability, Illinois Data Practices Act, and safeguards to minimize vicarious liability for both the employee and the agency and work effectively with officers of the court. (1.2) Fall, Spring
Proficiency Credit Available Pass/No Credit Not Available

PSC 235 Issues in Pub Saf Communications (.5-3) (.5-3, 0) 
Prerequisite: Grade of C or better in PSC 101 and PSC 102 or consent of program director.
Discussion and analysis of specific topics related to 9-1-1 dispatch centers. Focus of the class will be on day to day issues of telecommunications in the public safety sector and the interaction with the police, courts, fire, corrections, or private security in contemporary American society. Emphasis is on promoting dialogue between students and practitioners from different areas of the criminal justice system and public safety communications systems. Topics will vary. Course is repeatable a total of four times up to 12 credits. (1.2) Fall, Spring
Proficiency Credit Available Pass/No Credit Not Available
RADIO & TELEVISION PRODUCTION

No RTP courses are counted toward graduation in the A.A. and A.S. Degrees, nor are they counted in the GPA.

RTP 101 Radio Techniques (3) (3, 0)
Prerequisite: None
Designed primarily to acquaint students with fundamentals of radio broadcasting, microphone techniques, console operation, and tape recording. (1.6) On Demand
Proficiency Credit Not Available
Pass/No Credit Available

READING

All RDG courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

All repeatable 100-level RDG courses can only be counted once toward GPA and graduation.

RDG 110 Learning Strategies for College Texts (3) (3, 0)
Prerequisite: DRP reading assessment score of 44 to 59 or grade of C or better in RDG 091 or ACT score of 20 in English or consent of instructor
Designed for the student who wants to improve reading comprehension and speed and who wants to develop learning strategies and study skills in order to be able to handle college-level reading more effectively and efficiently. Students will work individually and in groups to develop the skills and sophistication necessary to handle college-level reading. Repeatable to 12 credits (1.1) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

RDG 111 Adult Students Coping with College (1) (1, 0)
Prerequisite: DRP Reading Assessment score of 44-59 or C or better in RDG 091, or consent of instructor
Designed for the student who wants to improve reading comprehension and speed and who wants to develop learning strategies and study skills in order to be able to handle college-level reading more effectively and efficiently. Students will work individually and in groups to develop the skills and sophistication necessary to handle college-level reading. Special emphasis is on those reading and study skills and strategies that are of particular concern to returning adults. (1.1) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Available

REAL ESTATE

All REL courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

REL 101 Real Estate (3) (3, 0)
Prerequisite: None
A course designed for individuals interested in passing the state of Illinois examination for salespersons and others seeking insights into the real estate business. The course will cover real estate transactions between the buyer, seller, and real estate broker, the real estate contract, merchantability of title, obligations of seller and buyer, and the deal. The course also covers lien transactions including mortgage rates, the installment and land contract, and the note or other evidence of obligation. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Available

REGISTERED NURSING
(See Nursing)

RELIGION
(See Humanities)

RESIDENTIAL AIR CONDITIONING & HEATING
(See Heating, Ventilation, Air Conditioning, & Refrigeration)

RESTAURANT MANAGEMENT
(See Culinary Management)

RETAILING
(See Management)
**RUSSIAN**

All FLR courses numbered 100 and above may be used to fulfill the liberal education requirement in the Associate of Applied Science Degree.

All FLR courses numbered 100 and above may also be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

**FLR 101 Elementary Russian (4)**

*Prerequisite:* None

Designed to give the student a foundation in the grammatical structure of the language with special emphasis on the alphabet, pronunciation, listening practice and reading of simple phrases. (1.1) Fall

Proficiency Credit Available
Pass/No Credit Not Available

**SCIENCE**

*(See also Astronomy, Biology, Chemistry, Geology, Physics, and Zoology.)*

**SPC 111 and SPC 211** fulfills both the physical sciences requirement and the lab science requirement for the Associate in Arts, Associate in Science and Associate in Fine Arts Degrees.

**SPC 111 and 211** may be used to fulfill the lab science requirement for the Associate in Liberal Studies Degrees.

All SCI and SPC courses numbered 100 and above may be used to fulfill the math/science requirement for the Associate in Applied Science Degree.

All SCI and SPC courses numbered 100 and above may also be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

**SCI 290 Physical Science: Special Topics**

*(Variable Credit 1-3)*

*Prerequisite:* None

Designed to satisfy specific needs of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available materials on special topics and 2) course will increase skills and knowledge of physical science (chemistry, physics, geology, and physical geography.) (1.1) On Demand

Proficiency Credit Available
Pass/No Credit Available

**SPC 111 Survey of Physical Science (4)**

*Prerequisite:* None

General course dealing with fundamentals of physical science using lectures, demonstrations and laboratory exercises. Emphasis is on physics and chemistry with some earth science. (1.1) On Demand

Proficiency Credit Available
Pass/No Credit Available

**SPC 211 Earth Science (4)**

*Prerequisite:* None

A holistic physical science approach to the study of earth science using basic chemical and physical science principles. The course will be a nonquantitative survey of astronomy, oceanography, meteorology and geology. (1.1) On Demand

Proficiency Credit Available
Pass/No Credit Not Available

**SCULPTURE**

*(See Art)*

**SECRETARIAL SCIENCE**

*(See Office Administration Technology)*

**SHEET METAL MECHANICS**

*(See Heating, Ventilation, Air Conditioning, & Refrigeration)*

**SOCIAL SCIENCES**

*(See Economics, Geography, History, International Studies, and Political Science)*

**SOCIOLOGY**

SOC 100, 201, 209, 210, 215, and 220 may be used to fulfill the behavioral science requirement for the Associate in Arts, Associate in Science, Associate in Fine Arts and Associate in Engineering Science Degrees.

All SOC courses numbered 100 and above may be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

All SOC courses numbered 100 and above may also be used to fulfill the behavioral science requirements for the Associate in Liberal Studies and Associate in Applied Science Degrees.

**SOC 100 Principles of Sociology (3)**

*Prerequisite:* None

A general introductory course designed to familiarize students with basic sociological concepts, theories and methods. The course is usually required for Social Science majors and a suggested elective or required course for non-majors. (1.1) Fall, Spring, Summer

Fulfills the ECC/IAI General Education/Behavioral Sciences requirement. IAI Course Number: S7 900

Proficiency Credit Available
Pass/No Credit Not Available

**SOC 201 Social Problems (3)**

*Prerequisite:* None

*Recommended:* SOC 100

This course utilizes sociological concepts and methods in the investigation and analysis of major social problems, including methods for alleviating them, such as: alcoholism, crime, drug addiction, mental illness, ethnic prejudice and marital discord. (1.1) On Demand

Fulfills the ECC/IAI General Education/Behavioral Sciences requirement. IAI Course Number: S7 901

Proficiency Credit Not Available
Pass/No Credit Not Available

**SOC 209 Racial and Ethnic Relations (3)**

*Prerequisite:* None

Study of the ethnic diversity of American society. The course will examine American ethnic groups originating in European and non-European areas but will focus on non-European. Particular attention will be paid to ethnic and racial identity development, racism, ethnocentric biases and attitudes, group interaction, and group interdependence. (1.1) Fall, Spring, Summer

Fulfills the ECC/IAI General Education/Behavioral Sciences requirement. IAI Course Number: S7 903D

Proficiency Credit Not Available
Pass/No Credit Not Available
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisite</th>
<th>Recommended</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOC 210</td>
<td>Marriage &amp; Family (3)</td>
<td>(3, 0)</td>
<td>None</td>
<td>SOC 100</td>
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<td></td>
<td>A sociological analysis of the family and its forms and</td>
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<td></td>
<td>functions. The course analyzes marital practices and</td>
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<td>family structures in a variety of cultural settings,</td>
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<td>and may investigate the extent to which societal</td>
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<td>customs and mores affect the individual’s conceptual-</td>
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<td>ization of these areas. (1.1) Fall, Spring, Summer</td>
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<td>Fulfills the ECC/IAI General Education/Behavioral</td>
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<td>Sciences requirement. IAI Course Number: S7 902</td>
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<td>Proficiency Credit Not Available</td>
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<td>Pass/No Credit Not Available</td>
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<tr>
<td>SOC 211</td>
<td>Principles of Social Work &amp; Social Welfare (3)</td>
<td>(3, 0)</td>
<td>SOC 100</td>
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<td></td>
<td>Principles of social work; survey of policies,</td>
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<td>ideologies and acts; role and function of welfare</td>
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<td>agencies and personnel; sociological analysis of</td>
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<td>welfare delivery; theories and practices relating to</td>
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<td>the welfare worker and the agency; analysis of the</td>
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<td>clientele and sociological factors relating to the</td>
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<td>welfare recipient. (1.1) Fall, Spring</td>
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<td>Fulfills the ECC/IAI General Education/Behavioral</td>
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<td>Sciences requirement. IAI Course Number: S8 900</td>
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<td>Proficiency Credit Not Available</td>
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<td>Pass/No Credit Not Available</td>
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<td>NOTE: This course is offered concurrently as PSY 215.</td>
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<td>The student must decide whether to earn credits in</td>
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<td>Sociology (SOC) or Psychology (PSY) prior to enrolling.</td>
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<tr>
<td>SOC 219</td>
<td>Honors Seminar in Sociology (1)</td>
<td>(1, 0)</td>
<td>None</td>
<td>SOC 100</td>
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<td>A seminar which complements a particular sociology</td>
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<td>course designed to provide the opportunity for study of</td>
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<td>the course material in greater depth, more</td>
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<td>sophisticated inquiry or methodology and/or more</td>
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<td>penetrating research. The student must qualify for</td>
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<td>honors status. Repeatable to two credits. (1.1)</td>
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<td>On Demand</td>
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<tr>
<td>SOC 220</td>
<td>Gender Roles and Social Change (3)</td>
<td>(3, 0)</td>
<td>SOC 100 or consent of</td>
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<td></td>
<td>instructor</td>
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<td></td>
<td>The study of gender roles and inequality in the context</td>
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<td>of a changing world: examination of the causes,</td>
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<td>behavioral effects, behavioral prescriptions, as well</td>
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<td>as forms of change in a variety of social and</td>
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<td>institutional contexts. (1.1) Spring</td>
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<td>Fulfills the ECC/IAI General Education/Behavioral</td>
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<td>Sciences requirement. IAI Course Number: S7 904D</td>
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<td>Proficiency Credit Not Available</td>
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<td>Pass/No Credit Not Available</td>
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<tr>
<td>SOC 225</td>
<td>Human Sexuality (3)</td>
<td>(3, 0)</td>
<td>Minimum GPA of C or</td>
<td>SOC 100</td>
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<td>Better than SOC 100 or PSY 100</td>
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<td>Study of social and psychological aspects of human</td>
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<td>sexuality. Includes sexual development, cultural</td>
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<td>influences, motivation and emotion, sex-role</td>
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<td>identification, values, and decision making. (1.1)</td>
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<td>Sciences requirement. IAI Course Number: S7 902</td>
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<td>Proficiency Credit Not Available</td>
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<td>Pass/No Credit Not Available</td>
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<td>NOTE: This course is offered concurrently as PSY 225.</td>
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<td>The student must decide whether to earn credits in</td>
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<td>Sociology (SOC) or Psychology (PSY) prior to enrolling.</td>
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<td>SOC 230</td>
<td>Criminology (3)</td>
<td>(3, 0)</td>
<td>None</td>
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<td>Nature of crime and delinquency with historic and</td>
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<td></td>
<td>conventional theories of causation. Interrelationship</td>
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<td>of punishment to solution and correction. (1.1)</td>
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<td>On Demand</td>
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<td>Fulfills the ECC/IAI General Education/Behavioral</td>
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<td>Sciences requirement. IAI Course Number: H1 900</td>
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<td>Proficiency Credit Available</td>
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<td></td>
<td>Pass/No Credit Not Available</td>
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**SPANISH**

FLS 104 may be used to fulfill the humanities requirement for the Associate in Arts, Associate in Science, Associate in Fine Arts and Associate in Engineering Science Degrees.

All FLS courses numbered 100 and above may be used to fulfill the liberal education requirement in the Associate of Applied Science Degree.

All FLS courses numbered 100 and above may also be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

**ADVANCED SPANISH PLACEMENT**

Based on the score received on the Advanced Placement (AP) Examination in Spanish Language, credit is available for FLS 102 and FLS 103 (AP, 3), FLS 103 and FLS 104 (AP, 4), and FLS 104 and FLS 201 (AP, 5) AND for Spanish Literature, credit is available for FLS 104 and FLS 201 (AP, 4).

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Prerequisite</th>
<th>Recommended</th>
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<tbody>
<tr>
<td>FLS 101</td>
<td>Elementary Spanish (4)</td>
<td>(4, 0)</td>
<td>None</td>
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<td></td>
<td>Designed for students who have had no previous</td>
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<td></td>
<td>background in Spanish. Includes essentials of grammar,</td>
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<td></td>
<td>pronunciation, practice in sentence structure,</td>
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<td></td>
<td>elementary composition and conversation. Emphasis</td>
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<td>placed on the acquisition of the following skills:</td>
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<tr>
<td></td>
<td>listening, speaking, reading and writing. (1.1)</td>
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<td>Fall, Spring</td>
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<td>Fulfills the ECC/IAI General Education/Behavioral</td>
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<td>Sciences requirement. IAI Course Number: S8 900</td>
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<td>Proficiency Credit Available</td>
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<td>Pass/No Credit Not Available</td>
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<tr>
<td>FLS 102</td>
<td>Elementary Spanish (4)</td>
<td>(4, 0)</td>
<td>FLS 101 or 1 year H.S.</td>
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<td></td>
<td>Spanish or 1 college semester</td>
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<td>Spanish or placement</td>
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<td></td>
<td>Continuation of FLS 101 Elementary Spanish. (1.1)</td>
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<td>Fall, Spring</td>
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<td>Fulfills the ECC/IAI General Education/Behavioral</td>
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<td>Sciences requirement. IAI Course Number: S7 902D</td>
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<td>Proficiency Credit Available</td>
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<td>Pass/No Credit Not Available</td>
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<tr>
<td>FLS 103</td>
<td>Intermediate Spanish (4)</td>
<td>(4, 0)</td>
<td>FLS 102 or 2 years H.S.</td>
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<td></td>
<td>Spanish or 2 college semesters</td>
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<td></td>
<td>Spanish or placement</td>
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<td></td>
<td>Includes grammar review from FLS 101 and 102. Specifically</td>
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<td></td>
<td>focuses on more complex grammatical concepts,</td>
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<td>composition, vocabulary building and practice in</td>
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<td></td>
<td>conversation. Supplementary intermediate level</td>
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<td>material may be read in class or as outside</td>
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<td>assignments. (1.1) Fall, Spring</td>
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<td>Fulfills the ECC/IAI General Education/Behavioral</td>
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<td>Sciences requirement. IAI Course Number: S7 902D</td>
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<td>Proficiency Credit Available</td>
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<td>Pass/No Credit Not Available</td>
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<td>FLS 104</td>
<td>Intermediate Spanish (4)</td>
<td>(4, 0)</td>
<td>FLS 103 or 3 years H.S.</td>
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<td>Spanish or 3 college semesters</td>
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<td>Spanish or placement</td>
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<td>Course begins with brief FLS 103 grammar review.</td>
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<td>Additional activities focus on studying and applying</td>
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<td>increasingly complex grammatical concepts and vocabulary</td>
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<td>Supplementary intermediate level material may be read</td>
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<td>in class or as outside assignments. (1.1) Fall, Spring</td>
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<td>Fulfills the ECC/IAI General Education/Behavioral</td>
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<td>Sciences requirement. IAI Course Number: S7 902D</td>
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</table>
FLS 110 Conversational Spanish I (3) 
**Prerequisite:** FLS 102 or 2 years H.S. Spanish or 2 college semesters Spanish or placement 
**Recommended:** Concurrent enrollment in FLS 103 or higher 
Strictly a conversational course that allows students to apply principles learned in FLS 101 and 102. Students develop confidence in speaking as they interact with each other and with instructor in Spanish. Guidance is provided for topics of discussion, appropriate vocabulary and structure, but explanations, when necessary, are kept to a minimum. This course is a booster for the basic language skills. (1.1) On Demand 
Proficiency Credit Not Available 
Pass/No Credit Available 

NOTE: This course is not a substitute for FLS 103 and 104 which are required for Foreign Language majors.

FLS 120 Conversational Spanish II (3) 
**Prerequisite:** FLS 103 or 3 years H.S. Spanish or 3 college semesters Spanish or placement 
**Recommended:** Concurrent enrollment in FLS 104 or higher 
Students aim at becoming more fluent speakers, as all conversations in class will be in Spanish. Specifically assigned discussion topics focus on expanding vocabulary use and gaining confidence in the application of grammatical principles. (1.1) On Demand 
Proficiency Credit Not Available 
Pass/No Credit Available 

NOTE: This course is not a substitute for FLS 103 and 104 which are required for Foreign Language majors.

FLS 201 Spanish Conversation & Composition (3) 
**Prerequisite:** FLS 104 or 4 years H.S. Spanish or 4 college semesters Spanish or placement 
Intensive work aimed at developing speaking and writing skills. Considerable attention paid to spontaneous conversation styles and precise composition work. The enhancement of comprehension skills is supported through the use of audio and video tapes and films. (1.1) On Demand 
Proficiency Credit Not Available 
Pass/No Credit Available 

FLS 202 Advanced Spanish Composition & Conversation (3) 
**Prerequisite:** FLS 201 or 5 college semesters Spanish or placement 
Continuation of FLS 201, Spanish Conversation and Composition, with emphasis on compositions based on literary works of Latin American authors, current newspapers and periodicals. (1.1) On Demand 
Proficiency Credit Not Available 
Pass/No Credit Available 

SPEECH

SPH 101 Fundamentals of Speech (3) 
**Prerequisite:** None 
Introductory public speaking course designed to develop research, delivery and organization skills. Particular attention is focused on finding, structuring and supporting ideas, as well as on increasing confidence and poise in a variety of speaking situations. (1.1) Fall, Spring, Summer 
Fulfills the ECC/IAI General Education/Communications requirement. IAI Course Number: C2 900 
Proficiency Credit Available 
Pass/No Credit Available 

SPH 102 Public Speaking (3) 
**Prerequisite:** SPH 101 
Advanced public speaking course. Theory and practice focuses on possible approaches to the preparation and delivery of informative and persuasive speeches. Sources of material, organizational patterns, persuasive strategies related to audience analysis, and the various methods of presentation are examined. (1.1) On Demand 
Proficiency Credit Available 
Pass/No Credit Available 

SPH 103 Group Discussion (3) 
**Prerequisite:** None 
Problem solving and information finding group discussions, focusing on the diverse group leadership styles and member roles. Theory addresses group purposes, organization of materials and the use of reasoning and evidence. (1.1) On Demand 
Proficiency Credit Not Available 
Pass/No Credit Not Available 

SPH 106 Introduction to Broadcasting & Film (3) 
**Prerequisite:** None 
History, methods and social implications of film as an art form. Special emphasis on evaluation and criticism of films. (1.1) Fall 
Fulfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F2 905 
Proficiency Credit Available 
Pass/No Credit Available 

SPH 110 Interpersonal Communication (3) 
**Prerequisite:** None 
Course presents principles and theories of interpersonal communication; studies communication barriers and breakdowns; focuses on self-concept and conflict management; addresses effectiveness in social and professional situations. (1.1) Fall, Spring 
Proficiency Credit Not Available 
Pass/No Credit Available 

SPH 112 Special Topics in Speech (Variable Credit 1-3) 
**Prerequisite:** None 
A course designed to meet varied needs expressed by students and community groups for developing knowledge and skills in methods, types and practical applications of oral communication. Course is repeatable to twelve credits. (1.1) On Demand 
Proficiency Credit Available 
Pass/No Credit Available
COURSE DESCRIPTIONS

SPH 120 Oral Interpretation of Literature (3) (3.0)
Prerequisite: None
Designed to improve the performance of oral reading for personal enjoyment and professional advancement. Special emphasis on the acquisition of skills aimed at increasing audience reaction and feedback. Focuses on the analysis and presentation of a variety of literature, essays and speeches. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

SPH 121 Voice Science & Phonetics (2) (2.0)
Prerequisite: None
Improvement of oral communication through study of basic principles in voice, articulation, physiology and diction. Work in phonetics with written and oral performance. (1.1) On Demand
Proficiency Credit Available
Pass/No Credit Not Available

SPH 130 Business & Professional Speaking (3) (3.0)
Prerequisite: None
Effective professional communication will be accomplished through skills development. Skills needed for effective communication will be identified. Methods for developing and improving skills will be applied. Areas of concentration will be small group communication, interviewing, person-to-group speaking and interpersonal communication. (1.1) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

SPEEDWRITING
(See Office Administration Technology)

SUBSTANCE ABUSE COUNSELING
(See Human Services)

SUBSTANCE ABUSE PREVENTION
(See Human Services)

SUPERVISORY & ADMINISTRATIVE MANAGEMENT
(See Management)

SURGICAL TECHNOLOGY

All SGT courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

SGT 101 Surgical Technology I (5) (5.0)
Prerequisite: Admission to the surgical technology program, high school diploma or equivalent, and a minimum of a C grade in each of BIO 130 and HPE 112 or concurrent enrollment in BIO 130 and HPE 112
This course introduces the student to the role, necessary skills, and working environment of the surgical technologist. Beginning principles of microbiology are explored as they relate to the infectious process, wound healing, and the practice of aseptic technique. Pharmacologic and anesthetic agents are also studied. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

SGT 111 Surgical Technology II (11.5) (5.5, 18)
Prerequisite: A minimum of a C grade in each of BIO 130, HPE 112 and SGT 101; can concurrently enroll in PSY 100
This course introduces the surgical technology student to principles of asepsis, instrumentation, and operating room equipment. The student participates, with supervision, in the perioperative care of surgical client, utilizing beginning skills of aseptic technique, instrumentation, and environmental control. Emergency and resuscitative techniques will be included. (1.2) Fall
Proficiency Credit Not Available
Pass/No Credit Not Available

SGT 120 Surgical Technology III (13.5) (5, 25.5)
Prerequisite: A minimum of a C grade in each of SGT 111 and PSY 100
Common surgical procedures will be studied in detail while the student is provided opportunities to reinforce this knowledge and further develop perioperative skills by personally assisting the surgeon in the operating room. Job-seeking skills will also be presented. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

TEACHER AIDE
(See Human Services)

TECHNOLOGY, GENERAL CORE

All GET courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

The following courses are applicable to more than one technical area. Consult the Career & Technical Education Curricula section for individual program requirements.

GET 107 Technical Graphics (2) (1, 3)
Prerequisite: None
Directed toward reading and understanding of prints used by the machinist. Includes understanding of the basic theory of the orthographic projection lines and views, introduction to abbreviation and symbols, machine shop terminology used in prints, interpretation to specifications, and construction and sketching of views. Students will complete technical sketches and basic working drawings in multiview and pictorial. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

GET 114 Electrical Controls (3) (2, 2)
Prerequisite: None
A study of the basic theories used in electrical control systems. Topics included are: component identification, schematic diagrams, Ohm's Law, Kirchoff's Law, series and parallel circuits, power, magnetism, switches, relays, alternating current fundamentals, transformers, basic motor and generator principles. Introduction to common solid state control devices will be presented. The course includes the use of instruments for making various types of electrical measurements. Troubleshooting techniques will be stressed. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

GET 118 Hydraulics & Pneumatics (5) (4, 2)
Prerequisite: High school algebra or MTH 096 or consent of instructor
Introduction to elemental laws of physics that underlie hydraulic and pneumatic systems. Emphasis on the fundamentals that make up such systems. Laboratory exercises help the student develop a working knowledge of hydraulic and pneumatic mechanisms and systems. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available
COURSE DESCRIPTIONS

GET 119 Introduction to Industrial Robots (4) (2.4)
Prerequisite: None
A course designed to provide the student with theoretical and practical experience using an industrial grade robot. Theory will include safety in the robotic environment, principles of robotic operation, robot task description and elements of programming. The relationship of the Cartesian Coordinate system of measurement to the operation of an industrial robot will be covered. The student will understand the principles of compound and tool transformations and perform these operations. The student will communicate with the robot control system through keyboard and teach pendant. The student will gain experience in robot control program storage, retrieval and editing. (1.2) Fall
Proficiency Credit Available
Pass/No Credit Not Available

GET 217 Industrial Manufacturing Processes & Materials (3)(3, 0)
Prerequisite: None
An understanding of modern manufacturing processes and materials is of vital importance to ensure products are designed for economical production. This course provides an understanding of the principles, practices, and materials in manufacturing, what they can or cannot do, how they can be utilized most effectively, and the economics of the various processes and materials. The major divisions of this course include specific attention to each of the main classes of processes and the materials relating to them. The principles of economics are stressed repeatedly with each topic studied. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

THEATRE

THE 100, 122 and 124 fulfill the fine arts requirement in the Associate in Arts, Associate in Science, Associate in Fine Arts, and Associate in Engineering Science Degrees.

THE 100 and 122 may be used to fulfill the liberal education requirement in the Associate of Applied Science Degree.

All THE courses numbered 100 and above may also be applied to the major field and elective requirement in the A.A. and A.S. Degrees.

THE 100 Theatre Appreciation (3) (3.0)
Prerequisite: None
This course is an introduction to theatre as a performing art and the transformation of dramatic literature from text to final performance. From civilization’s beginnings, the artistic impulse has found dramatic expression in a variety of historical, social and cultural contexts. Students will study the development of the theatrical event from playwright and performer through critical, social and audience perceptions as they read plays, view performances on video and attend productions in Chicago area theatres. (1.1) Fall
Fullfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F1 907
Proficiency Credit Not Available
Pass/No Credit Not Available

THE 110 Drama Performance Ensemble I (1) (0.3)
Prerequisite: Completion of successful audition or consent of instructor
This course is open to all students and adults in the area who audition and are cast in ECC’s drama productions. Rehearsal processes and ensemble performance skills, which culminate in a series of performances, are the focus of the course. Rehearsals occupy an 8-10 week period. Schedules at audition. Repeatable to four credits. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Available

THE 122 Intro-Theatre History & Literature (3) (3.0)
Prerequisite: None
This course is an introduction to the history, literature and collaborative nature of the art of the theatre from its earliest ritual beginnings to contemporary dramatic literature. Students will survey the major historical developments of Western and non-Western theatre, literary genres, theatrical styles, as well as the social, political, and artistic context in which they were created. The interrelationship of the roles of the playwright, director, producer, designers, actors, and technicians as they contribute to the final production will be examined. Analysis and interpretation of selected plays and productions will compare ancient and contemporary works. (1.1) Spring
Fullfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F1 908
Proficiency Credit Available
Pass/No Credit Not Available

THE 123 Rehearsal & Performance (3) (3, 0)
Prerequisite: None
Provides practical experience for acting and play production. Each student will be expected to participate in the cast or on the crew of a production to be presented before an audience. (1.1) Fall, Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

THE 124 Diversity of American Drama (3) (3, 0)
Prerequisite: None
This course will examine the cultural context and theatrical literature that reflects the diversity of identity in the United States. Plays studied will include African American, Asian American, Hispanic American, feminist, and gay and lesbian theatre. (1.1) Spring
Fullfills the ECC/IAI General Education/Fine Arts requirement. IAI Course Number: F1 909D
Proficiency Credit Not Available
Pass/No Credit Not Available

THE 132 Acting I (3) (3, 0)
Prerequisite: None
The principles of the actor's craft are explored, including exercises in movement, voice, improvisation, character and monologue study. Techniques for the preparation and development of a role are examined. Course involves lecture, discussion, active participation, and critique of student work. (1.1) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

THE 134 Improvisation for the Theatre (3) (3, 0)
Prerequisite: None
Improvisation will be taught as a method of actor training designed to improve focus, concentration, timing and teamwork. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

THE 136 Acting II (3) (3, 0)
Prerequisite: THE 132 or THE 134
This course strengthens the actor's craft by emphasizing the application of technique to character development, text analysis, and the rehearsal and performance of selected scenes and projects. Strong memorization skills and availability of outside rehearsal time are required. (1.1) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

THE 142 Movement for the Stage (3) (3, 0)
Prerequisite: None
This course will explore a variety of movement techniques for acting and characterization including mask work, mime, Laban technique, and yoga, as well as centering and energy technique from the martial arts. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available
COURSE DESCRIPTIONS

THE 144 Voice and Speech for the Stage (3) (3, 0)
Prerequisite: None
Basic voice and speech skills for the stage actor will include vocal warmups, vocal health, breath support, relaxation in vocal production, projection, articulation, and dialects. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

THE 160 Introduction to Theatre Technology (3) (2, 3)
Prerequisite: None
Introduction to the fundamentals of technical theatre with hands-on applications, focusing on the basics of theatrical design, stagecraft, set construction, stage lighting and overall production. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

THE 162 Technical Theatre Practicum (3) (1, 10)
Prerequisite: THE 160
This course is designed to give the student valuable hands-on experience working on an actual theatrical production. Under the supervision of the faculty member and the production staff, the student will fulfill a vital role with the theatrical production. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

THE 164 Lighting Design and Technology (3) (2, 3)
Prerequisite: THE 160
This is a practical, hands-on approach to the fundamentals and techniques of theatrical lighting. Focusing on design, equipment, technology, and practical applications, this course is project oriented. Students will do as many projects as time, space and production schedule will allow. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

THE 168 Stage Makeup (3) (2, 3)
Prerequisite: THE 160
This course offers the student the opportunity to study stage makeup styles as well as the principles of designing and applying makeup for stage performances. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

THE 170 Stage Management (3) (2, 5, 1)
Prerequisite: THE 160
A practical, hands-on approach to the techniques of Stage Management. In this course students will concentrate on the skills needed by today's stage managers, such as organizational skills, time management, personnel management and professionalism in the theatrical world. (1.1) On Demand
Proficiency Credit Not Available
Pass/No Credit Not Available

THE 241 Stage Combat I (3) (3, 0)
Prerequisite: None
This course is the first part of a two-semester course sequence designed to prepare the student for the Actor/Combatant Skills Proficiency Test, offered by the Society of American Fight Directors, a nationally recognized stage combat training organization. Combat I emphasizes unarmed combat skills including basic falls, throws and hand-to-hand technique drawn from judo, karate, aikido, wrestling, boxing and bar-room brawling. (1.1) Fall
Proficiency Credit Not Available
Pass/No Credit Not Available

THE 242 Stage Combat II (3) (3, 0)
Prerequisite: THE 241
This course is the second part of a two-semester sequence designed to prepare the student for the Actor/Combatant Skills Proficiency Test, offered by the Society of American Fight Directors, a nationally recognized stage combat training organization. The class will focus on training and practice in the skills of armed and unarmed combat for the stage, emphasizing the history, theory and technique of Medieval and Renaissance weapons such as the quarterstaff and rapier and dagger for use in Shakespeare and other period plays. (1.1) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

THERMOPLASTICS
INJECTION MOLDING
(See Industrial Manufacturing Technology)

TOOL & DIE MAKING
(See Industrial Manufacturing Technology)

TRANSCRIPTION
(See Office Administration Technology)

TRANSMISSION & DRIVETRAIN SPECIALIST
(See Automotive)

TRUCK DRIVING

All BRG courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

BRG 101 Truck Driving I (6) (6, 0)
Prerequisite: Consent of instructor
This course will include vehicle systems, D.O.T. rules and regulations, logs, and all legal topics of interest to trucking and transportation. Additional topics include defensive driving, cargo handling, hazardous materials. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available

BRG 201 Truck Driving II (6) (2, 12)
Prerequisite: BRG 101
This course covers the yard and on-the-road aspects of tractor trailer driving. Students will receive extensive hands-on experience in backing, parking, start up, and preventive maintenance. There will be actual on-the-road driving by students. Completion of BRG 101 and BRG 201 will prepare the student to take the necessary exams to obtain a license to operate a tractor trailer. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available

BRG 202 Truck Driving III (4) (4, 0)
Prerequisite: Consent of instructor
This course is an extension of BRG 101 and BRG 201 with further study of the topics and skills covered in those two courses. Also included will be additional information on maintenance, communications, costs, dispatching, and operations. (1.2) Fall, Spring, Summer
Proficiency Credit Not Available
Pass/No Credit Not Available
WELDING
All WEL courses numbered 100 and above may be applied to the major field and elective requirement in the Associate in Arts and Associate in Science Degrees.

All repeatable WEL courses can be counted only once toward GPA and graduation.

WEL 101 Welding I (2) (1, 2)
Prerequisite: None
Basic concepts of oxy-acetylene welding and electric welding for beginners. Includes arc welding and gas welding, brazing and cutting in the flat position. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Available

WEL 102 Welding II (4) (2, 4)
Prerequisite: WEL 101 or consent of instructor
Advanced techniques and skill improvement in oxy-acetylene welding and arc welding. The lab experiences in basic MIG and TIG (Heliarc) welding will be provided. An introduction to weld testing will be included. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

WEL 111 Welding Safety (3) (3, 0)
Prerequisite: None
The student will become aware of the importance of developing a safe work attitude as it applies to the welding industry. Safe handling of various gases, welding equipment and related tools will be covered. Emphasis will be on creating and maintaining a safe welding environment. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

WEL 112 Applied Welding Theory (3) (2, 2)
Prerequisite: None
A course which will provide both lab and classroom experiences to cover the basic theory of all major welding processes. Processes covered include: Shielded metal arc welding; gas metal arc welding; gas tungsten arc welding; flux cored arc welding; submerged arc welding; plasma arc welding and oxy-acetylene welding. (1.2) Spring
Proficiency Credit Available
Pass/No Credit Available

WEL 113 Welding Power Sources & Setup (3) (2, 2)
Prerequisite: None
Designed to familiarize the student with the differences between various types of welding power sources. The student will learn through lab experiences proper set-up and maintenance, troubleshooting procedures, and minor repair techniques. (1.2) Spring
Proficiency Credit Not Available
Pass/No Credit Not Available

WEL 120 Blueprint Reading for Welders (2) (1, 2)
Prerequisite: None
Prepares the student to interpret drawings as applied in the welding trade and to become familiar with welding symbols and their significance. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Available

WEL 208 Welding III (4) (2, 4)
Prerequisite: WEL 102
The student will perform weld using mild steel in all positions and will include arc, gas tungsten arc (TIG), submerged arc welding (SAW), and gas metal arc (MIG) processes. The student will become comfortable in the operation of plasma arc welding. Emphasis will be on development of a degree of skill necessary to pass welder qualification tests in all positions. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

WEL 210 Welding IV (4) (2, 4)
Prerequisite: WEL 120 and 208 or consent of instructor
Students will construct welding projects employing arc, oxy-acetylene, gas metal arc (MIG), gas tungsten arc (TIG), or any combination of these welding processes using a welding blueprint as a guide. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

WEL 211 TIG Welding Techniques (4) (2, 4)
Prerequisite: None
This course is for students who need to develop skills in gas tungsten arc welding (TIG). The student will select appropriate machine settings. All position welds on hot and cold rolled and galvanized mild steel, stainless steel, and aluminum and cast iron will be produced. Process variations include standard and pulse mode operation. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

WEL 212 MIG Welding Techniques (4) (2, 4)
Prerequisite: None
This course is for students who need to develop skills in gas metal arc welding (MIG). The student will set up welding equipment and produce welds in all positions. Process variations to be used include short circuit and spray transfer with solid wire, flux cored (inner shield and dual shield) and submerged arc welding. Metals to be welded include mild steel, stainless steel, and aluminum. (1.2) Fall, Spring
Proficiency Credit Available
Pass/No Credit Not Available

WEL 214 Cutting Processes (2) (1, 2)
Prerequisite: None
This is a skill building course which will allow the student an opportunity to gain proficiency in all major industrial arc and oxy-fuel cutting processes-manual, semi-automatic and automatic. Processes include Plasma Arc, Air Carbon Arc, Shielded Metal Arc, Exothermic, and Oxy-Fuel Cutting. The student will also learn to operate an optical tracer and CNC controls. (1.2) Fall, Spring, Summer
Proficiency Credit Available
Pass/No Credit Not Available
WEL 215 Advanced Welding Techniques (4)  
Prerequisite: WEL 102  
This is a skill development course designed to help the student produce quality welds on cast iron, aluminum, medium carbon steel, and other metals requiring special weld treatment. Other weld troubleshooting techniques will be covered starting with precise metal identification, locating and eliminating cracks, visual inspection, and proper pre-and post-weld treatment. (1.2) Spring  
Proficiency Credit Available  
Pass/No Credit Not Available

WEL 217 Welder Qualification (2)  
Prerequisite: WEL 102 or one year experience in the process in which the person is seeking certification (MIG or stick welding)  
Welder certification is required by an increasing number of area employers. The purpose of this class is to help the student attain welder certification. This certification will meet the requirements of AWS D1.1 (limited thickness) and the needs of many area manufacturers. However, some employers may require additional or recertification. Repeatable to eight credits. (1.2) Fall, Spring  
Proficiency Credit Available  
Pass/No Credit Available

WEL 218 Arc Welder Qualification (2)  
Prerequisite: WEL 102 or one year experience in the process in arc welding  
Welder certification is required by an increasing number of area employers. The purpose of this class is to help the student attain arc welder certification. This certification will meet the requirements of AWS D1.1 Structural Welding Code (limited thickness) and the needs of many area manufacturers. However, some employers may require additional or recertification. Repeatable to eight credits. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Available

WEL 220 MIG Welder Qualification (2)  
Prerequisite: WEL 102 or one year experience in MIG welding  
Welder certification is required by an increasing number of area employers. The purpose of this class is to help the student attain MIG welder certification. This certification will meet the requirements of AWS D1.1 Structural Welding Code (limited thickness) and the needs of many area manufacturers. However, some employers may require additional or recertification. Repeatable to eight credits. (1.2) On Demand  
Proficiency Credit Available  
Pass/No Credit Available

WEL 221 Advanced Blueprint Reading for Welders (2)  
Prerequisite: WEL 120  
This course is designed to aid the student in becoming proficient in reading more complex welding blueprints. Emphasis will be on developing the ability to transfer the two-dimensional print to the actual three-dimensional object. The student will gain experience in related mathematical calculations. Students will learn spreadsheet manipulation by working up a job quote. (1.2) Fall  
Proficiency Credit Available  
Pass/No Credit Not Available

WEL 234 Special Topics in Welding (1)  
Prerequisite: None  
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on specific topic; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of welding. Course is repeatable to four credits. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available

WEL 235 Special Topics in Welding (2)  
Prerequisite: None  
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on specific topic; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of welding. Course is repeatable to eight credits. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available

WEL 236 Special Topics in Welding (3)  
Prerequisite: None  
Designed to satisfy specific needs or interests of students and the community. The following guidelines are to be used in selecting topics: 1) adequate and available material on specific topic; 2) comprehensive outlines for each topic; and, 3) course should be designed to increase skill and knowledge in field of welding. Course is repeatable to 12 credits. (1.2) On Demand  
Proficiency Credit Not Available  
Pass/No Credit Not Available

WORD PROCESSING
(See Office Administration Technology)

ZOOLEGY

ZOL 101 fulfills the life sciences requirement and the lab science requirement for the Associate in Arts, Associate in Science and Associate in Fine Arts Degrees.  

ZOL 101 may also be used to fulfill the lab science requirement for the Associate in Liberal Studies Degrees and the math/science requirement for the Associate of Applied Science Degree.  

All ZOL courses numbered 100 and above may also be applied to the major field and elective requirement in the A.A. and A.S. Degrees.  

ZOL 101 General Zoology (5)  
Prerequisite: None  
Recommended: For premedical, predental, preveterinary and zoology majors.  

Study of the animal kingdom with emphasis on parasitic organisms and others of economic or evolutionary importance. A very practical class for all students. (1.1) Fall, Spring  

Fulfills the ECC/IAI General Education/Life Science (lab) requirement.  

IAI Course Number L1 902L  

Proficiency Credit Not Available  
Pass/No Credit Not Available