

## Course Descriptions

### Index to Course Code Prefixes

<b>Program</b>	<b>Prefix</b>	<b>Page</b>	<b>Program</b>	<b>Prefix</b>	<b>Page</b>
Addictions Studies	ADC	156	Leisure Services Careers	LSC	189
Animation (see MDT)		191	Literature	LIT	184
Anthropology	ANT	158	Local Area Networks	LAN	184
Arabic	ARB	158	Management Information Systems (Also see IMS, OSA)	MIS	194
Architectural CAD (see MDT)		191	Massage Therapy	MAS	190
Art	ART	158	Mathematics	MTH	202
Automotive Technology	AUT	162	Mechanical and Fluid Power Maintenance (See IMM)	IMM	183
Basic Nurse Assistant (See Health Science Careers)		180	Mechanical Design and Drafting/CAD	MDT	191
Biology	BIO	163	Medical Assistant	MOA	199
Business	BUS	164	Meeting Planner (see LSC)		
CAD (see MDT)		191	Music	MUS	205
Chemistry	CHM	168	Natural Science	NAT	207
Child Care	CCA	167	Nursing	NUR	207
College Introduction	COL	168	Office Systems and Applications (Also see IMS, MIS)	OSA	209
College Skills	COS	170	Philosophy	PHI	215
Communications	COM	169	Phlebotomy	PHB	214
Computer Aided Design	MDT	191	Physical Education and Health	PEH	212
Computer and Information Sciences (See CSC, IMS, MIS, OSA)			Physical Science	PHS	215
Computer Animation (see MDT)		191	Physics	PHY	216
Computer Science Transfer	CSC	171	Political Science	PSC	217
Criminal Justice	CRJ	170	Polysomnography	PSG	217
Culinary Arts	RTM	224	Private Protective Services	SLP	226
Data Communications	LAN	184	Psychiatric Rehabilitation	PSR	218
Drafting	MDT	191	Psychology	PSY	219
Earth Science	EAS	172	Radiologic Technology	RAD	220
Economics	ECO	172	Reading	RDG	222
Education	EDU	172	Recreation Management (Also see THR)	REC	222
Electronics	ELT	174	Recreation Therapy	THR	230
Engineering	EGN	174	(Also see REC)		
Emergency Medical Services	EMS	175	Respiratory Therapy Technology	RES	223
Fire Science Technology	FIS	175	Restaurant/Hotel Management	RTM	224
Fitness Trainer (see PEH)		212	Social Science	SSC	226
French	FRE	177	Social Work	SWK	228
Geography	GEO	178	Sociology	SOC	227
Geology	GEL	178	Spanish	SPA	227
German	GER	178	Theater	THE	229
Health Information Technology	MRT	200	Transportation, Distribution, Logistics	TDL	229
Health Sciences Careers	HSC	180	Travel Business Management	LSC	189
Heating and Air Conditioning	HAC	178	Welding	WLD	230
History	HIS	179			
Humanities	HUM	181			
Information Management Systems (Also see MIS, OSA)	IMS	183			
Integrated Systems Technology	IST	184			
Intensive English Language	IEL	182			
Japanese	JPN	184			
Journalism	JRN	184			

Moraine Valley's courses meet a variety of students' needs. Course descriptions are listed by prefix and include the course code, credit hours (in parentheses), course title, pre- and corequisites, content description, and contact hours. Where appropriate, the Illinois Articulation Initiative general education core curriculum (IAI) and baccalaureate major (IAIM) codes are listed following the contact hours. See pages 50 and 51 for more information on the IAI. Not all courses are offered every year. See the subdivision dean or the department chair for information on courses that are offered on a rotational basis.

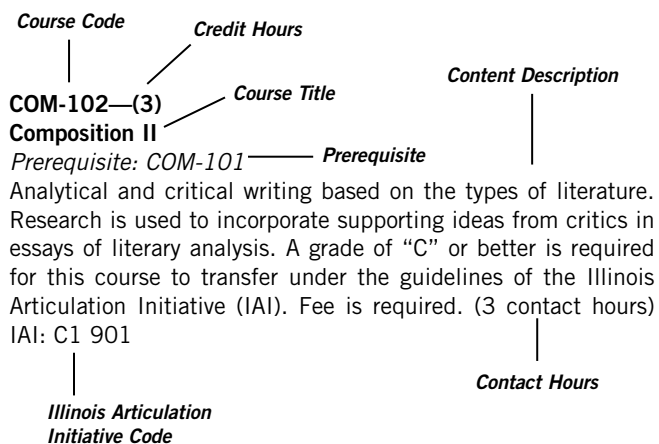
**Prerequisite**—coursework must be completed before enrolling in the designated class, often an introductory course.

**Corequisite**—you are required to take two designated courses during the same semester.

**Consent of instructor**—a course permission slip must be granted by the instructor.

**IAI Code**—meets the requirements of the Illinois Articulation Agreement.

**Key to Course Descriptions**



**ADC—Addictions Studies**

**ADC-100—(3)**  
**Human Development and Behavior**  
 Provides basic principles of human development and behavior. Focus is on how chemical use, misuse, abuse and dependency affect normal growth and development. (3 contact hours)

**ADC-101—(3)**  
**Introduction to Addiction Counseling**  
 Introduction to alcohol and other drug abuse counseling and processes. Focus is on assessment and diagnosis, the core functions of an alcohol and other drug abuse counselor, and basic counseling skills. Provides information on career opportunities, counselor certification requirements and procedures, and other aspects of the AODA counselor. (3 contact hours)

**ADC-106—(3)**  
**Individual Counseling**  
*Prerequisite: ADC-101*  
 Provides intensive instruction in the theory and practice of the individual counseling approach used in alcohol and other drug abuse treatment. (3 contact hours)

**ADC-108—(3)**  
**Addictions Services**  
*Prerequisite: ADC-101 and ADC-205 or consent of instructor*  
 Provides an overview of specific modalities of services, applicable Illinois and federal rules and regulations, and relationships with various systems (e.g., EAP, criminal justice, schools) through which intervention takes place. (3 contact hours)

**ADC-110—(3)**  
**Common Behavior Disorders**  
 Provides an overview of the causes, assessment and treatment of common behavior disorders. Includes a review of eating disorders, pathological gambling, attention-deficit hyperactivity, sexual disorders, and substance abuse as a behavior disorder. (3 contact hours)

**ADC-112—(3)**  
**Special Populations**  
 Examines treatment issues, techniques, and the development of programs related to significant cultures and special-needs groups (e.g., adolescents, women, the elderly, children of alcoholics, the homeless, and minority groups). Dual diagnoses also are covered. (3 contact hours)

**ADC-202—(3)**  
**Alcohol and Alcoholism**  
 Provides intensive instruction about alcohol and alcoholism, with emphasis on the stages of alcohol abuse, causes of alcoholism, prevention of alcohol abuse, and treatment of alcoholism. Focus is on the disease concept. (3 contact hours)

**ADC-204—(3)**  
**Psychoactive Drugs**  
 Provides intensive instruction about psychoactive drugs: characteristics, effects, signs, and symptoms. (3 contact hours)

**ADC-205—(3)**  
**Substance Abuse**  
 Examines commonly abused drugs and their behavioral effects. Includes a review of drug regulations and programs, signs/symptoms commonly seen in abusers, and general guidelines useful in drug abuse-related emergencies. (3 contact hours)

**ADC-206—(3)**  
**Group Counseling**  
*Prerequisite: ADC-101*  
 Provides intensive instruction in the theory and practice of the group counseling approach used in alcohol and other drug abuse treatment. (3 contact hours)

**ADC-207—(3)**

**Family Counseling**

*Prerequisite: ADC-101*

Provides intensive instruction in the theory and practice of the family counseling approach used in alcohol and other drug abuse treatment. (3 contact hours)

**ADC-208—(3)**

**Case Management**

*Prerequisite: ADC-100, ADC-101, ADC-106, ADC-108, ADC-202, ADC-204, ADC-205, ADC-206, ADC-207; or consent of instructor*

Provides instruction in advanced AODA counseling techniques. Emphasis is on diagnostics and assessment, evaluation of cases, case management, and documentation. (3 contact hours)

**ADC-210—(2)**

**Diagnostic and Statistical Evaluation**

Provides instruction in the use of the American Psychiatric Association Diagnostic and Statistical Manual of Mental Disorders in AODA assessment and treatment situations. (2 contact hours)

**ADC-215—(3)**

**Employee Assistance Programs**

Examines employee assistance programs. Focus is on components of the EAP, assessment and referral services, counseling in the EAP context, supervisory training, health promotion, and EAP issues. (3 contact hours)

**ADC-219—(2)**

**Contemporary Issues: Alcohol/Drugs**

Intended primarily for students interested in alcohol and other drug issues. The course examines basic policy problems: legislation, professionalism, education, training, literature and research, procedures, administration, and social problems. (2 contact hours)

*This course may be taken four times for credit.*

**ADC-220—(3)**

**Preventionist I**

Provides instruction in the skills and knowledge areas essential to AODA prevention programming. Preventionist core functions emphasized include record keeping, human development enhancement, community assessment, evaluation, public speaking, marketing, program development, written communication, and teaching and training. (3 contact hours)

**ADC-221—(3)**

**Preventionist II**

*Prerequisite: ADC-220*

Continues instruction in the skills and knowledge areas essential to AODA prevention programming. Preventionist core functions emphasized include social policy impact, linkage, resource development, consultation, working with volunteers, teaching and training, working with the media, and written communication. (3 contact hours)

**ADC-230—(1)**

**Special Topics in Addiction Studies**

Students work with instructor individually or in small groups to develop special projects designed to focus on specific addictions studies, chemical dependency, substance abuse, or related topics. (1 contact hour)

*This course may be taken four times for credit.*

**ADC-233—(3)**

**Field Practicum**

*Prerequisite: Consent of practicum coordinator*

*Corequisite: Registration in ADC-237*

Supervised practical exposure and involvement in chemically dependent treatment service delivery at an approved addictions counseling site. This course meets the minimum supervision requirements for counselor certification by the Illinois Alcohol and Other Drug Abuse Professional Certification Association. Fee is required. (5 contact hours)

**ADC-235—(3)**

**Preventionist Practicum**

*Prerequisite: Consent of practicum coordinator*

*Corequisite: Registration in ADC-239*

Supervised practical exposure and involvement in AODA prevention core functions. This course meets the minimum supervision requirements for preventionist certification by the Illinois Alcohol and Other Drug Abuse Professional Certification Association. (3 contact hours)

**ADC-237—(1)**

**Seminar**

*Prerequisite: Consent of practicum coordinator; registration in ADC-233*

Discussion of supervised field service experience in Field Practicum. (1 contact hour)

**ADC-239—(1)**

**Preventionist Seminar**

*Prerequisite: Consent of practicum coordinator*

*Corequisite: Registration in ADC-235*

Discussion of supervised field service experience in the Preventionist Practicum. (1 contact hour)

**ANT—Anthropology****ANT-201—(3)****Introductory Physical Anthropology**

Introduces the physical and cultural origins of humans, including study of primate behavior, fossil humans, development of tools, origins of agriculture, and development of early civilization. (3 contact hours) IAI: S1 902

**ANT-202—(3)****Introduction to Cultural Anthropology**

Introduces nature, origins of culture, and diversity of recent or living cultures. Covers methods of field work, case studies, problems of acculturation, and the role of museums in presenting and preserving material culture. (3 contact hours) IAI: S1 901N

**ANT-205—(3)****North American Indians**

Surveys the archaeology and diverse cultures of native Americans, focusing on the earliest migrations to North America, the cultural achievements of the mound and pyramid builders, and the creative adaptations of specific Indian groups to various environments—past and present. (3 contact hours)

**ANT-210—(3)****Introduction to Archaeology**

Introduces archaeological concepts, research, and methods for studying prehistoric and present cultures. Surveys the origin and development of societies in all parts of the world as revealed by significant archaeological sites and material culture. Current archaeological investigations of local interest and ethical issues in archaeology are examined. (3 contact hours) IAI: S1 903

**ARB—Arabic****ARB-101—(4)****Arabic I**

This course introduces students to modern standard Arabic. Practice focuses on developing basic knowledge and skills in pronunciation and recognition of the sounds of Arabic, reading and writing the Arabic script, grammar, reading and listening comprehension, and written composition. The course presumes no prior study of the language. (4 contact hours)

**ARB-102—(4)****Arabic II**

*Prerequisite: ARB-101*

This course develops existing basic abilities to communicate in speaking and writing modern standard Arabic. Practice focuses on increasing knowledge and skills in pronunciation, grammar, reading and listening comprehension, and written composition. The course builds on basic skills to read and write in the Arabic writing system, and knowledge of basic Arabic grammar. (4 contact hours)

**ART—Art****ART-101—(3)****Drawing I**

Introduces drawing principles and techniques. Covers form, design and perspective, and includes various drawing media techniques. Fee is required. (6 contact hours) IAIM: ART 904

**ART-104—(3)****Drawing II**

*Prerequisite: ART-101*

A continuation of ART-101, this course emphasizes composition, perspective and visual interpretation. A variety of drawing media is used. Fee is required. (6 contact hours) IAIM: ART 905

**ART-105—(3)****Life Drawing**

*Prerequisite: ART-101*

Teaches techniques of human figure drawing using draped and undraped models. Various media, applying principles such as design, structure, composition, form and abstraction, are used. (6 contact hours) IAIM: ART 906

**ART-107—(3)****Arts and Crafts**

Covers use of basic craft materials. Design and application of craft projects to various educational and leisure programs are covered. (6 contact hours)

**ART-110—(3)****Art Appreciation**

Introductory survey and analysis of the visual arts—painting, sculpture, architecture, photography, printmaking, and crafts—to acquaint non-art majors with basic aesthetic concepts: media, technique and function; elements and form; genres; stylistic characteristic and expressive qualities; and socio-cultural influences. (3 contact hours) IAI: F2 900

**ART-116—(3)****Two-Dimensional Design**

Introduces the basic principles and elements of two-dimensional design, including composition and use of color in visual art. Emphasizes application of original ideas in creation of original design. Fee is required. (6 contact hours) IAIM: ART 907

**ART-117—(3)****Color Theory**

Theories, principles, elements of color, and their application in the visual arts are covered. Fee is required. (6 contact hours)

**ART-118—(3)****Three-Dimensional Design**

*Prerequisite: ART-116*

Basic principles and elements of three-dimensional design are discussed. Includes volume, color, value, texture, and line. Emphasizes application of design concepts to original design. Fee is required. (6 contact hours) IAIM: ART 908

**ART-120—(3)**

**Beginning Painting**

*Prerequisite: ART-101*

Introduces basic techniques and materials of oil and acrylic painting. Fee is required. (6 contact hours) IAIM: ART 911

**ART-121—(3)**

**Watercolor Painting**

*Prerequisite: ART-101*

Introduces basic techniques and materials of transparent and opaque watercolor painting. Fee is required. (6 contact hours)

**ART-122—(3)**

**Intermediate Painting**

*Prerequisite: ART-120*

Explores advanced painting techniques as applied to solving visual problems in oils, acrylics and watercolors. Fee is required. (6 contact hours)

**ART-125—(3)**

**Ceramics I**

Create clay forms using hand techniques and potter's wheel. Covers glazes, decorations and kiln firing. Explores design problems and solutions. Includes historical and cultural development of ceramics as an art form. Fee is required. (6 contact hours) IAIM: ART 912

**ART-126—(3)**

**Ceramics II**

*Prerequisite: ART-125*

Applies basic pottery methods to create advanced ceramic forms. Presents experimental problems in glazes, mixing and firing. Applies historical, aesthetic and artistic principles to ceramics problems. Student exhibit is required. Fee is required. (6 contact hours)

**ART-146—(3)**

**Introduction to Computer Art**

*Corequisite: Registration or credit in ART-101 and ART-116 or consent of instructor*

Introduction to computer applications in the visual arts. A Macintosh computer software-based approach to visual image manipulation and generation is provided, including the integration of computer hardware, software and peripheral devices as tools to create and combine traditional and contemporary visual ideas. Involves both theoretical understanding and practical application in the utilization of computer hardware and software to capture, combine, manipulate, and generate two-dimensional visual images in both art and design. Fee is required. (6 contact hours) IAIM: ART 919

**ART-150—(3)**

**Sculpture**

*Prerequisite: ART-101*

Introduces basic techniques of sculpture. Explores three-dimensional media. Applies additive, subtractive and manipulative approaches to creating three-dimensional works of art. Fee is required. (6 contact hours) IAIM: ART 913

**ART-160—(3)**

**Introduction to Photography**

This studio course covers the basic principles of photography, including equipment, film processing, composition, and darkroom techniques. Students supply film, mount board, paper, and 35mm manual camera. Fee is required. (6 contact hours) IAIM: ART 917

**ART-161—(3)**

**Camera and Darkroom Techniques**

*Prerequisite: ART-160*

This studio course develops expressive and technical skills in 35mm camera usage and darkroom work through the exploration of various black-and-white films, chemistries, exposure systems and printing techniques. Through a series of complex photographic projects, students learn to think creatively with a camera, control exposure, and explore the photographic potential of various combinations of films and developers, printing papers, alternative printing techniques, and various lighting techniques. Students supply black-and-white film, mounting board, RC and fiber-based paper, and 35mm manual camera. Fee is required. (6 contact hours)

**ART-162—(3)**

**Photographic Design**

*Prerequisite: ART-160*

This studio course investigates the application of 2D design elements to explore the creative potential of the photographic medium. Students will utilize traditional and non-standard photographic processes to make images which implement specific design techniques. The use of design as a method of communicating ideas and concepts within photography will be explored. A series of conceptual and technical projects will emphasize joining specific techniques, materials and design elements to bring about a unique creative vision. Creative techniques of 35mm camera work, black and white printing, studio work, and photographic manipulation techniques will be explored. Students supply black and white films, mounting board, RC and fiber-based paper, and 35mm manual camera. Fee is required. (6 contact hours)

**ART-170—(3)**

**Printmaking**

Introduces basic printmaking techniques such as woodblock and silk screen. (6 contact hours) IAIM: ART 914

**ART-180—(3)**

**Digital Photography**

*Prerequisite: ART-146, ART-160 or consent of instructor*

This art/graphic design studio course introduces photographic manipulation, emphasizing acquisition of the photographic image using appropriate software tools and palettes for basic manipulation techniques, color correction, image selection, masking, multiple layering, output including conversion to CMYK, duotones, as well as historical references and models. Fee is required. (4 contact hours)

**ART-182—(4)**

**Digital Illustration**

*Prerequisite: ART-146 or consent of instructor*

This art/graphic design studio course introduces vector-based computer illustration techniques. Investigates object-oriented graphics; curves and shapes; blending; patterns; and textures. Also examines the manipulation of type fonts as images. Fee is required. (6 contact hours)

**ART-184—(4)**

**Digital Imaging**

*Prerequisite: ART-146 or consent of instructor*

This art/graphic design studio course introduces computer imaging with bit-mapped graphics and rasterized images. Interaction between imaging and object-oriented software is explored. Fee is required. (6 contact hours)

**ART-186—(3)**

**Digital Layout and Publishing**

*Prerequisite: ART-146 or consent of instructor*

This art/graphic design studio course introduces desktop layout and publishing software. Requires the creation of both single- and multiple-page documents in black and white, as well as in color. Also covers document construction, integration of word processing programs, working with images and typography, custom colors, and output to printers or service providers. (4 contact hours)

**ART-203—(3)**

**History of Design**

Provides students with a history of design from the industrial revolution to the present, including both industrial and graphic design. Covers the development of design, its major movements, prominent designers, and their significant contributions. (3 contact hours)

**ART-205—(3)**

**Survey of Art I**

A chronological survey of art, from prehistory through the Middle Ages. Included are artistic achievements of the Prehistoric, Ancient Near East, Ancient Egyptian, Greek, Roman, Early Christian, Byzantine, Carolingian, Ottoman Romanesque, Gothic periods, as well as major non-western art traditions including Islamic, Indian, Chinese, Japanese, the Pre-Columbian Americas, and Africa. Field trip required. (3 contact hours) IAI: F2901; IAIM: ART 901

**ART-206—(3)**

**Survey of Art II**

A chronological survey of art from the Proto-Renaissance through the mid-nineteenth century. Included are artistic achievements of both Western and Non-Western cultures. Styles and cultures include West Renaissance, Baroque, Rococo, Neoclassical, Romantic and Realistic periods. Non-Western covers India, China, Japan, Pacific cultures and Africa. Field trip required. (3 contact hours) IAI: F2 902; IAIM: ART 902

**ART-207—(3)**

**Survey of American Art**

A chronological survey of the development of the visual arts in the United States from the colonial period through the present day. Early European influences, post World War II art and the contemporary art scene are included. Field trip required. (3 contact hours)

**ART-208—(3)**

**Survey of Art III**

A chronological survey of modern art from the mid-19th century through the present time. Beginning with Impressionism, artistic achievements associated with the development of art through movements such as Post-Impressionism, Cubism, Surrealism, Abstraction, and Contemporary art forms will be included. Field trip required. (3 contact hours) IAI: F2 902; IAIM: ART 903

**ART-209—(3)**

**Survey of Non-Western Art**

A survey of non-Western art forms reflecting differing cultures and traditions found in the creative endeavors of Middle Eastern, South Asian, Far Eastern, Pre-Columbian Americas, Oceanian, and Subsaharan African artists. The impact of non-Western art on the contemporary art scene will also be discussed. Field trip required. (3 contact hours) IAI: F2 903N

**ART-230—(3)**

**Digital Design Internship**

*Prerequisite: ART-180, ART-182, ART-184, ART-186, and consent of internship coordinator or instructor*

This internship provides an opportunity for students to learn firsthand how a computer artist/designer handles day-to-day assignments. Student interns either work directly with experienced designers approved by the Internship Coordinator or work on a freelance basis. They also attend a seminar for one hour per week to discuss internship activities and problems, and develop means to close the gap between theory and on-the-job reality. Fee is required. (11 contact hours)

**ART-231—(2)**

**Art Seminar**

*Prerequisite: ART-101, ART-104 or ART-105, ART-116, ART-118, and 6 credit hours from ART-205, ART-206, ART-207, ART-208 or ART-209 with a grade of "C" or better, and have the permission of the department chair of Fine Arts/Humanities.*

This course is designed for the student who is planning on transferring to a four-year institution as an art major. Provides an opportunity for guidance in portfolio preparation and offers opportunities to learn about careers in the visual arts. Through field trips to artists' studios, lectures, critiques, and hands-on situations, gain a better understanding of the role of the artist in contemporary society. (2 contact hours)

**ART-232—(3)**

**Digital Portfolio Development**

*Prerequisite: ART-180, ART-182, ART-184, ART-186, ART-248, or consent of instructor*

This art/design studio course's primary orientation is the development of the student's portfolio. This course permits students to work on their portfolio for a semester in close contact with the instructor. Includes field trips to design organizations, galleries and museums to further enhance awareness of contemporary computer design. Fee is required. (4 contact hours)

**ART-246—(3)**

**Advanced Computer Art**

*Prerequisite: ART-180, ART-182, ART-184, ART-186, ART-248, or consent of instructor*

This art/graphic design studio course develops students' advanced skills in the digital creation and manipulation of visual images. This course permits students to work on computer-designed projects in close contact with the instructor. Fee is required. (6 contact hours)

**ART-248—(3)**

**Web Page Layout**

*Prerequisite: ART-180, ART-182, ART-184, ART-186, or consent of instructor*

This art/graphic design studio course covers the development of well-designed Web site pages for the Internet and an intranet. Provides students with the tools to design their own home pages. Covers page planning, navigation, page layout tools, use of image maps. Uses appropriate software to enhance students' awareness of the latest technological advances. Fee is required. (4 contact hours)

**ART-249—(3)**

**Intermediate Web Page Design**

*Prerequisite: ART-180, ART-182, ART-184, ART-186, ART-248, or consent of instructor*

Building on basic web page layout, this art/graphic design studio course opens up new design possibilities with the addition of sound, animation, and interactivity. Fee is required. (4 contact hours)

**ART-280—(3)**

**Independent Studio: Drawing**

*Prerequisite: ART-101, ART-104, ART-105*

This studio course is for students who have completed all course work in the discipline of drawing. Students enter into a contract with the instructor to complete an agreed-upon body of work and/or project. (6 contact hours)

**ART-281—(3)**

**Independent Studio: Painting**

*Prerequisite: ART-120, ART-121, ART-122*

This is a studio course for students who have completed all course work in the discipline of painting. Students enter into a contract with the instructor to complete an agreed-upon body of work and/or project. Fee is required. (6 contact hours)

**ART-282—(3)**

**Independent Studio: Ceramics**

*Prerequisite: ART-125, ART-126*

This is a studio course for students who have completed all course work in the discipline of ceramics. Students enter into a contract with the instructor to complete an agreed-upon body of work and/or project. Fee is required. (6 contact hours)

**ART-283—(3)**

**Independent Studio: Photography**

*Prerequisite: ART-160 and either ART-161 and ART-162; or ART-160 and consent of instructor*

This is a studio course for students who have completed college-level coursework in photography. Students enter into a contract with the instructor to complete an agreed-upon body of work and/or project. Students supply black-and-white films, RC and/or fiber-based paper, and 35mm manual camera, and other incidental supplies as needed. Fee is required. (6 contact hours)

**ART-284—(3)**

**Independent Studio: Design**

*Prerequisite: ART-116, ART-117 or ART-146, ART-118*

This is a studio course for students who have completed all course work in the discipline of design. Students enter into a contract with the instructor to complete an agreed-upon body of work and/or project. Fee is required. (6 contact hours)

**AUT—Automotive Technology**

**AUT-112—(4)**

**Introductory Automotive Technology**

This course provides the automotive technology student career information about the automotive service industry. The class provides theory and related hands-on experience on live automobiles as a foundation for advanced automotive courses. Instruction includes engine testing and service procedures used on automobile systems and components. (6 contact hours)

**AUT-114—(4)**

**Electrical/Electronic Systems I**

*Corequisite: Registration or credit in AUT-112*

This course provides instruction in basic electricity and electronics, including direct-current electricity, series and parallel circuits, and basic electronics. Theory, operation and testing of the starting, charging, lighting, and signaling systems are covered. The student will work with multimeters and other electrical test equipment in developing troubleshooting techniques. (6 contact hours)

**AUT-120—(3)**

**Automotive Service Advisor**

*Prerequisite: AUT-112 or consent of program coordinator*

This course provides the automotive technology student with the knowledge needed for a career as an automotive service consultant (service writer, assistant service manager). The class provides theory and related hands-on experience on live automobiles similar to those in an automobile dealership, independent shop, or franchise service center. Instruction includes consumer relations, internal relations, sales skills, shop operations, and preparation for achieving ASE certification as a service consultant. (4 contact hours)

**AUT-121—(4)**

**Automotive Brake Systems**

*Prerequisite: AUT-112*

This course provides instruction in the theory of operation, diagnosis, and servicing of automotive disc and drum brake systems. Both standard and ABS brake systems are included. Service and troubleshooting of vacuum, hydraulic and electrical controls are covered. (6 contact hours)

**AUT-125—(4)**

**Performance and Driveability I**

*Prerequisite: AUT-114*

Engine drivability through the fuel delivery system, from the fuel tank through fuel distribution components, including electric fuel pumps, fuel filters, fuel injectors, regulators, return systems, vapor recovery, idle air control, and air temperature control are covered. (6 contact hours)

**AUT-127—(3)**

**Introduction to Alternative Fuels**

This course will address the need in the 21st century for alternative light-duty vehicles, their power plants, and the energy sources used to propel them. Alternative fuel systems will be discussed as well as their advantages, disadvantages, and impact on passenger safety and the environment. Also included will be a discussion of some of the hybrid vehicles currently in use and the fuel cell as a means of replacing the internal combustion engine for generating electricity. (3 contact hours)

**AUT-214—(4)**

**Electrical/Electronic Systems II**

*Prerequisite: AUT-114*

This is a course in advanced automotive electronics with an emphasis on understanding and diagnosis of electronic ignition systems, computerized engine control systems, and non-engine-related computer systems. (6 contact hours)

**AUT-232—(4)**

**Performance & Driveability II**

*Prerequisite: AUT-125*

This is an advanced course in engine drivability and fuel management diagnosis. Emphasis on proper diagnostic procedures, use of scan tools, digital oscilloscopes, and exhaust gas analyzers are covered. (6 contact hours)

**AUT-233—(1)**

**Seminar**

*Prerequisite: Student must be in the third semester of the auto program or completed a minimum of five AUT classes*

*Corequisite: Registration in AUT-237 and consent of instructor*

Discussion of internship activities and problems, a student's performance, and any questions arising out of an internship. Development of professional attitude. Course strives to narrow the gaps between theory and on-the-job reality. (1 contact hour)

**AUT-234—(4)**

**Steering and Suspension Systems**

*Prerequisite: AUT-112*

This course covers theory of operation, diagnosis, maintenance, repair, and adjustment procedures pertaining to steering and alignment. Lab work includes two- and four-wheel alignment, servicing rack and pinion steering systems, conventional and MacPherson strut-suspension systems. (6 contact hours)

**AUT-236—(4)**

**Auto Engine Reconditioning**

*Prerequisite: AUT-112*

This course covers recognizing and diagnosing causes of engine failure and procedures necessary to repair or build an automotive engine. Lab work consists of use of precision measuring tools, restoration of tolerance by machining engine components, and proper disassembly and assembly procedures. (6 contact hours)

**AUT-237—(3)**

**Internship**

*Prerequisite: Student must be in the third semester of the Auto Program or have completed a minimum of 5 AUT classes.*

*Corequisite: Registration in AUT-233 and consent of instructor*  
At AUT internship sites under the supervision of a certified ASE technician, students will diagnose and repair problems involving automotive components relating to the industry in which the student is employed. (15 contact hours)

**AUT-240—(4)**

**Manual Transmissions and Drivelines**

*Prerequisite: AUT-112*

Studies manual drive transmissions and transaxles (6 contact hours)

**AUT-242—(4)**

**Automatic Transmissions**

*Prerequisite: AUT-112*

Students study automatic transmissions and transaxles, clutches, linkages, cables, in-vehicle and off-vehicle component repairs, bands and drums. Emphasizes problem assessment, theory of operation and overhaul procedures. (6 contact hours)

**AUT-244—(4)**

**OBDII and Emission Control Systems**

*Prerequisite: AUT-232*

Diagnosis and service of advanced computerized engine control systems (OBDII) and IM240 testing procedures are the main concepts covered. Detailed instruction on the use of advanced electronic testing equipment used in the diagnosis of these systems is covered in-depth. (6 contact hours)

**AUT-246—(4)**

**Heating and Air Conditioning Systems**

*Prerequisite: AUT-112*

Explores theory, operation, testing, and servicing of automotive heating and air conditioning systems. Laboratory work includes proper handling of refrigerants, troubleshooting, repairing, and servicing of these systems. Students also may gain certification in recycling and recovery of refrigerants. (6 contact hours)

**BIO—Biology**

**BIO-111—(4)**

**General Biology I**

Scientific methods, biochemistry, cellular biology, cellular reproduction, classical and molecular genetics are covered with an emphasis on processes. Fee is required. (6 contact hours) IAI: L1 900L; IAIM: BIO 910, CLS 901

**BIO-112—(4)**

**General Biology II**

Structure and function of the major systems of animals, plants, fungi, protista and bacteria are covered. Origin of life, ecology, classification and evolution are also studied. Animal dissection is included. Note: BIO-111 is recommended prior to taking this course. Fee is required. (6 contact hours) IAI: L1 902L; IAIM: BIO 910, CLS 902

**BIO-115—(4)**

**Anatomy and Physiology**

This course is an integrated study of anatomy and physiology of the human body. All of the major body systems are covered in this course. This course is designed primarily for students interested in health and medical sciences. Dissections of cats and other animals are required. Fee is required. (5 contact hours) IAI: L1 904L

**BIO-119—(4)**

**Introductory Microbiology**

This course introduces microbial life, including morphology, staining, genetics, physiology and biochemistry of bacteria, archaea, fungi, protozoa, algae and helminthes. Medical significance of these organisms is covered, as is the significance of viruses, prions and viroids. It is strongly recommended that students select one of the following courses prior to taking this course: BIO-111, CHM-111, or CHM-131. Fee is required. (6 contact hours) IAI: L1 903L; IAIM: CLS 905, NUR 905

**BIO-180—(4)**

**Human Anatomy and Physiology I**

*Prerequisite: 1 year of high school chemistry or CHM-111*

The first course of a two-course sequence, this course presents an integrated approach to structure and function of the human body. Thirty contact hours are allocated to working with human specimens and the remainder of laboratory time is allocated to the cat as a specimen. Models, prepared slides, and physiological experiments, including instrumentation, are also part of the laboratory experience. Emphasizes normal microanatomy and physiological principles of human cells, tissues, skeletal elements, and the musculature, circulatory and respiratory systems. It is strongly recommended that students select one of the following courses prior to taking this course: BIO-111, BIO-115 or CHM-131. Fee is required. (6 contact hours) IAI: L1 904L ; IAIM: CLS 903, NUR 903

**BIO-181—(4)**

**Human Anatomy and Physiology II**

*Prerequisite: BIO-180*

This course covers the structure and function of humans as related to the digestive, excretory, nervous, and endocrine systems; special senses; homeostatic mechanisms; human embryology and reproduction; electrolyte balance; and stress physiology. Thirty contact hours are allocated to working with human specimens and the remainder of laboratory time is allocated to the cat as a specimen. Models, prepared slides, and physiological experiments, including instrumentation, are also part of the laboratory learning experience. Fee is required. (6 contact hours) IAIM: CLS 904, NUR 904

**BIO-182—(2)**

**Human Anatomy Lab I**

*Prerequisite: BIO-115 or BIO-180 and evidence of current tetanus vaccination*

This is the first of a two-course laboratory sequence using a human cadaver to study gross anatomy. Emphasis will be placed on gross anatomy of the integument, skeletal, cardiovascular, muscular, and respiratory systems. Fee is required. (3 contact hours)

**BIO-183—(2)**

**Human Anatomy Lab II**

*Prerequisite: BIO-181 and BIO-182 or consent of instructor, and evidence of current tetanus vaccination*

This is the second of a two-course laboratory sequence using a human cadaver to study gross anatomy. Emphasis will be placed on gross anatomy of the digestive, nervous, special sense, urinary, endocrine, and reproductive systems. Fee is required. (3 contact hours)

**BIO-211—(4)**

**Zoology I**

*Prerequisite: BIO-111 or consent of instructor*

Study of the natural history, morphology and physiology of invertebrate animals. Emphasizes midwestern forms, including distribution, feeding habits, reproduction, economic importance, and classification. Fee is required. (6 contact hours)

**BIO-212—(4)**

**Vertebrate Zoology**

*Prerequisite: BIO-111 or consent of instructor*

This course covers the structure and function of animal systems and their evolutionary relationships. Examines taxonomy, ecology, behavior, and distribution of representative animals. Fee is required. (6 contact hours)

**BIO-215—(3)**

**Physiology of Health and Disease**

*Prerequisite: BIO-115 or BIO-181*

This course includes functional interrelationships between body systems in health and disease. Emphasizes application of physiological concepts in problem solving. (3 contact hours)

**BIO-220—(4)**

**Ecology and Field Biology**

*Prerequisite: BIO-111 or consent of instructor*

This course introduces general ecology. Includes field approach of measuring environmental factors in order to understand the ecosystem concept. Interrelationships of organisms, including humans and their environment, are explored. Field work and field trips are included. Fee is required. (6 contact hours)

**BIO-230—(4)**

**Botany**

*Prerequisite: BIO-111 or consent of instructor*

Lecture and lab illustrate the diversity of simple and complex plants. Covers the structure of roots, stems, leaves, flowers, and fruits; physiology of growth and response to environmental factors; and local plant ecology stressing community types, biomes and succession. (6 contact hours)

**BUS—Business**

**BUS-100—(3)**

**Introduction to Business**

This course will provide the student with the opportunity to develop concepts, attitudes, and ideas about the nature of business and the environment in which it operates. Types of business ownership, management, marketing, finance, accounting, human resources, labor-management relations, ethics and other related topics are covered. (3 contact hours) IAIM: BUS 911

**BUS-105—(4)**

**Small Business Management**

Studies fundamentals of the organization and operation of a small business. Examines the problems of initial decisions: location, planning, financing, legal concerns, marketing and managing the small business. (4 contact hours)

**BUS-107—(2)**

**Fundamentals of Accounting**

This course is designed for two types of students: those with no high school or career accounting background who feel the need for introductory work prior to taking BUS-142 (Financial Accounting) and students that do not wish to take BUS-142, but would like to learn some accounting basics. Emphasis is placed on basic bookkeeping and accounting concepts. Topics will include: journalizing, posting, adjusting entries, financial statements, closing entries, and payroll. The course will also examine some accounting differences between a sole proprietorship, partnership, and corporation. This is a nontransfer course. (2 contact hours)

**BUS-110—(3)**

**Legal Environment in Business**

A study of the modern legal and social environment of business, with emphasis on the regulation of business by government statutes, administrative regulations, and court decisions. Areas of concentration include: tort law, consumer protection law, employment law, labor law, and securities law. (3 contact hours) IAIM: BUS 913

**BUS-120—(3)**

**Business Mathematics**

*Prerequisite: Appropriate score on math placement test or MTH-090*

This practical course covers mathematics of accounting, management, marketing, and finance. Topic coverage includes sales and property taxes, checkbook reconciliations, payroll, depreciation, trade and cash discounts, markup, review of financial statements, and both simple and compound interest calculations. (3 contact hours)

**BUS-130—(3)**

**Principles of Marketing**

This course emphasizes key concepts and issues underlying the modern practice of marketing. It includes an analysis of consumer and industrial markets and development and operation of a marketing program emphasizing domestic marketing of manufactured goods. (3 contact hours)

**BUS-131—(3)**

**Principles of Retailing**

This course examines the fundamentals that support the success of a retail business based on the five components of merchandising: planning, product, placement, price, and promotion. The student will learn the concepts behind effective strategic retail planning as practiced by different types of retail institutions: location selection, buying, selling, advertising, store management, pricing, customer services, and financing. Includes management of human resources and information systems. (3 contact hours)

**BUS-133—(3)**

**Salesmanship**

This course focuses on the actual processes involved in the successful selling of products, services, and ideas to both organizational and final customer markets. The student will learn the principles and techniques used in prospecting and preparation, approaching, demonstrating, meeting objection, sale closing, and follow-up. Topics also include buying motives, sales psychology, and the attitudes and attributes of successful sales professionals. Applies to selling both tangible products and intangible services to both organizational and final customer markets. (3 contact hours)

**BUS-134—(3)**

**International Business**

This course introduces the student to the fundamentals of international marketing, analysis of international business opportunities, market entry strategies and finances, business in the global workplace, the impact of cultural environments on the decision-making process, and the impact of foreign economies on U.S. business. (3 contact hours)

**BUS-136—(3)**

**Business Law**

This course provides an introduction to law, examining topics such as contracts, sales and bailments, agency, employment, real and personal property, partnerships and corporations, and the common law as modified by the Uniform Commercial Code (UCC). The case method and problem solving are used to show the legal problems affecting business contracts. (3 contact hours) IAIM: BUS 912

**BUS-142—(4)**

**Financial Accounting**

*Prerequisite: Appropriate score on math placement test or MTH-090*

This course introduces the basics of financial accounting with emphasis on accounting as an information system which aids in the decision-making process. The focus is on the analysis and classifying of accounting information necessary for the preparation of external general-purpose financial statements. Topics include transaction analysis, development of financial reports, the accounting cycle, accruals and deferrals, receivables, payables, payroll, promissory notes, inventory costing, plant assets and depreciation methods, corporate equity concepts, bonds payable, and present value. Students with no high school or career accounting background, who believe they need introductory work, should take BUS-107 prior to taking this course. (4 contact hours) IAIM: BUS 903

**BUS-143—(4)**

**Managerial Accounting**

*Prerequisite: BUS-142*

This second semester accounting course presents accounting as a system of producing information for the use of internal decision-makers. The course emphasizes the identification, accumulation, and interpretation of information for planning, controlling, and evaluating the performance of the separate components of a business. Topics include both job-order and process cost systems, cost-volume-profit analysis, budgeting, performance evaluation, differential analysis, capital investment analysis, and activity-based costing. (4 contact hours) IAIM: BUS 904

**BUS-145—(3)**

**Computer Applications in Accounting**

*Prerequisite: BUS-142*

This course introduces the student to the use of a contemporary accounting software package, such as Peachtree. Through classroom discussions and laboratory exercises, the student will gain a practical knowledge of computerized accounting applications including accounts receivable, accounts payable, purchasing, invoicing, job costing, payroll, budgeting, and reporting. The course assumes a basic knowledge of personal computers, as well as a working knowledge of the accounting cycle. (4 contact hours)

**BUS-148—(3)**

**Introduction to Finance**

*Prerequisite: BUS-142*

This course introduces corporate financial management. Topics include profit maximization, valuation theory, risk and return concepts, and techniques for managing current assets, fixed assets, and capital structure. (3 contact hours)

**BUS-155—(3)**

**Display and Visual Merchandising**

Design and create merchandising displays to cultivate positive customer attitudes toward a store or department for the purpose of selling merchandise. (3 contact hours)

**BUS-170—(3)**

**Introduction to Human Resources**

This course introduces the student to the policies and practices of employment agencies and personnel offices. Topics include recruiting, advertising, interviewing, counseling, placement, marketing, ethics, public relations, and labor law. (3 contact hours)

**BUS-200—(3)**

**Consumer Behavior**

Introduces the consumer and organization decision process in selection, acquisition, and use of products and services. Examines influences on consumer behavior that can be considered by marketers in developing marketing strategies and tactics. (3 contact hours)

**BUS-215—(3)**

**Employee Training and Development**

Provides experience for the human resources professional in developing, designing, implementing, and evaluating employee training and development programs. Covers skill-based and employee development training methods for both on-site and off-site training. (3 contact hours)

**BUS-226—(3)**

**Business Ethics**

This case-oriented course introduces moral issues associated with industry and commerce. Major ethical systems are explored. Encourages ethical methodology. Note: Only three credit hours can be earned for either BUS-226 or PHI-226. Duplicate credit in both courses will not be awarded. (3 contact hours)

**BUS-230—(3)**

**Advertising**

Covers advertising as an institution in society, a tool of marketing, and a process of mass communication. Explores the elements of developing effective advertising campaigns, including setting objectives, establishing budgets, creating messages, selecting media, and evaluating results. (3 contact hours)

**BUS-231—(3)**

**Principles of Management**

Examines the foundations and nature of managing both profit and nonprofit organizations in a dynamic global environment. Studies the major management functions of planning and decision making, organizing, leading, and controlling. Emphasis is placed on ethics, diversity and teamwork. The nature of authority, responsibility, and accountability along with “line” and “staff” organizations are also closely reviewed. (3 contact hours)

**BUS-232—(3)**

**Human Resources Management**

The Civil Rights Movement, federal manpower development programs, Fair Labor Standards Act, Social Security Act, and their impact upon management and personnel are explored. (3 contact hours)

**BUS-233—(3)**

**Internship**

*Prerequisite: Consent of instructor*

*Corequisite: Registration in BUS-237*

Planned and supervised career field experience relating to the student's degree program. (3 contact hours)

**BUS-235—(2)**

**Personal Development**

Business psychology dealing with attitudes and concepts, including personal efficiency, human relations, motivation, and personality health for personal leadership are covered. (2 contact hours)

**BUS-237—(1)**

**Seminar**

*Prerequisite: Consent of instructor*

*Corequisite: Registration in BUS-233*

Discuss internship activities and issues, and development of professional attitude. Closes gaps between theory and on-the-job reality. (1 contact hour)

**BUS-240—(3)**

**Intermediate Accounting I**

*Prerequisite: BUS-143*

A study of the theory concepts and generally accepted accounting principles underlying the preparation of external accounting reports for corporate organizations. Topics include preparation of financial statements, the time value of money, cash, receivables, inventories, and plant and intangible assets. (3 contact hours)

**BUS-241—(3)**

**Intermediate Accounting II**

*Prerequisite: BUS-240*

Continuation of the study of generally accepted accounting principles underlying external financial reporting. Topics emphasized include current long-term liabilities, stockholders' equity, dilutive securities and earnings per share, investments and revenue recognition. Accounting for income taxes, pensions, leases, and the statement of cash flows are also covered. (3 contact hours)

**BUS-242—(3)**

**Cost Accounting**

*Prerequisite: BUS-143*

Covers managerial accounting topics in more detail. Emphasizes the role of accounting in virtually all aspects of an organization. Topics include organizational strategy, quality control, internal cost allocations, product and service costing methods, cost control techniques, cost analysis, and budgeting. (3 contact hours)

**BUS-243—(3)**

**Federal Income Taxes**

*Prerequisite: BUS-143*

Includes a comprehensive explanation of federal tax structure and training in application of tax principles to specific problems. Focuses on theory of tax law and the ability to identify tax problems. (3 contact hours)

## CCA—Child Care

### CCA-101—(3)

#### Introduction to Early Childhood Education

Presents an overview of the history and philosophy of the different types of early childhood centers, including the past, present and future programs for young children and their families. Also examines the role of the early childhood professional in assessing and planning developmentally appropriate practices to serve young children. Guidance and observational skills will be fostered through field experiences. (3 contact hours) IAIM: ECE 911

### CCA-102—(3)

#### Growth and Development—Young Child

Emphasizes the practical application of the theories and principles of child development related to the physical, intellectual, emotional, and social areas of a child's growth. Stresses cultural influences, experiences, and need satisfaction which shape a child's total development. Field observations and participation in early childhood settings will be included. (5 contact hours)

### CCA-104—(3)

#### Language Development and Activities—Young Child

In-depth knowledge and understanding of language development, the stages involved, the role that adults play, and the relationship of language to other aspects of development are covered. Introduces the student to a wide variety of language activities appropriate for young children and helps develop skills in preparing, presenting and evaluating each of the language activities included in the course. (3 contact hours)

### CCA-105—(3)

#### Health-Safety-Nutrition—Young Child

A comprehensive overview of ways which ensure children's physical well-being. Basic and changing health, safety and nutrition needs of children are examined, as well as appropriate methods by which these needs can be met in group or home settings. (3 contact hours)

### CCA-106—(3)

#### Creative Activities—Young Child

An overview of a wide variety of experiences and methods for developing self-expression and creativity in the young child, including art, music, rhythm, and movement. (4 contact hours)

### CCA-107—(3)

#### Infant and Toddler Care

Studies patterns of growth and development of children from birth to age 3; examines needs of infants and toddlers in various child care settings; and develops skills in managing a safe environment and planning stimulating, age-appropriate activities. (3 contact hours)

### CCA-108—(3)

#### Observation and Guidance—Young Child

Study of guidance practices which support the development of the young child. Theories are provided that support an analysis of child behavior as well as the development of guidance techniques. Students will develop and understand the relationship between careful observation, communication, and effective interaction with children. (4 contact hours)

### CCA-109—(3)

#### Child, Family and Community

*Prerequisite:* CCA-101, CCA-102 or consent of instructor

Concentrates on the teacher's role in working with the child's family and community. Stresses parent education, changing families and legal responsibilities. Specific criteria and methods for effective parent-teacher communication are also discussed. Includes an in-depth study of community resources. (3 contact hours)

### CCA-110—(3)

#### Parenting

An overview of the parenting process. Reviews the history of childhood, theories and models of development which apply to parenting, and the status of children today. Child-rearing problems and issues are discussed, and specific discipline and communication styles are explored. Focuses on the influences of contemporary stresses, family and culture on the development of the child's self-concept. (3 contact hours)

### CCA-201—(3)

#### Math and Science for the Young Child

Introduction to the theory and practice related to the curricular areas of math and science for young children. Emphasis will be placed on the development and evaluation of developmentally appropriate activities and instructional materials. (3 contact hours)

### CCA-203—(3)

#### Administration and Supervision of Early Childhood Programs

Examines a variety of management processes, as well as components needed for an effective center: policies, programs, evaluation, parent involvement, computers and administrative software, licensing, and accreditation. (3 contact hours)

### CCA-204—(3)

#### The Child at Risk

Studies social and economic conditions contributing to "at risk" factors in early childhood. Analyzes programs and methods that meet educational needs of children. (3 contact hours)

### CCA-205—(3)

#### Curriculum—Early Childhood Programs

*Prerequisite:* CCA-104 and CCA-201 or consent of coordinator

Overview of principles involved in planning, implementing and evaluating developmentally appropriate curriculum. Includes lesson plans; emerging curriculum; scheduling; room arrangement; materials and equipment; individual, small and large group activities; short- and long-term goals; and a study of teacher's roles and responsibilities in curriculum development. (4 contact hours)

**CCA-211—(1)****Special Topics in Child Development**

Students work with the instructor individually or in small groups to develop special projects designed to focus on specific child development phenomena. (1 contact hour)

**CCA-233—(3)****Internship I**

*Prerequisite:* CCA-101, CCA-102, CCA-104, CCA-105, CCA-106, CCA-108, CCA-109, CCA-201, CCA-205, and/or consent of instructor

*Corequisite:* Registration in CCA-237

A planned and supervised experience in a child care facility. Fee is required. (15 contact hours)

**CCA-237—(1)****Seminar I**

*Prerequisite:* Consent of coordinator and registration in CCA-233  
Discuss internship activities and challenges. (1 contact hour)

**CHM—Chemistry****CHM-111—(4)****Fundamentals of Chemistry**

*Prerequisite:* one year of high school algebra or MTH-095 with a grade of "C" or better

An introductory course with laboratory in the basic fundamentals of inorganic chemistry with an introduction to organic, nuclear and biochemistry. Topics include metric system, atomic theory, nomenclature, bonding, stoichiometry, properties of matter, solutions, acids and bases, pH, and organic functional groups. The course does not assume that students have had high school chemistry, and is intended for nonscience liberal arts students and those who plan to pursue a career in allied health or nursing. The course is also designed as an entry-level course for CHM-131 for students who need a chemical foundation prior to enrolling in university-oriented chemistry. Fee is required. (5 contact hours) IAI: P1 902L

**CHM-131—(4)****Chemistry (University-Oriented) I**

*Prerequisite:* one year of high school chemistry or CHM-111

Principles and theories of inorganic chemistry; molecular, atomic, nuclear and electronic theories of matter related to the periodic table; oxidation-reduction and ion exchange; and theories of solution are explored. For students in chemistry, chemical engineering or physical science programs. Fee is required. (6 contact hours) IAI: P1 902L; IAIM: BIO 906; CHM 911; CLS 906; EGR 961; NUR 906

**CHM-132—(4)****Chemistry (University-Oriented) II**

*Prerequisite:* CHM-131 or equivalent

Principles of chemical equilibrium applied to dissociation, solubility and hydrolysis in aqueous solution are covered. Studies metals, nonmetals and their compounds. Procedures for separation and identification of common metallic and nonmetallic ions are emphasized. Fee is required. (6 contact hours) IAIM: BIO 907, CHM 912, CLS907, EGR 962, NUR 907

**CHM-203—(5)****Organic Chemistry I**

*Prerequisite:* CHM-132

Modern concepts of the structure of organic compounds, correlation between structure, spectroscopy and properties are explored. Reactions, reaction mechanisms, study of aliphatic and aromatic hydrocarbons, alkyl halides, alcohols, ethers, and carboxylic acids are covered. Fee is required. (7 contact hours) IAIM: BIO 908, CHM 913, CLS 908, EGR 963, NUR 908

**CHM-204—(5)****Organic Chemistry II**

*Prerequisite:* CHM-203

Studies of carboxylic acids, aldehydes, ketones, amines, phenols, carbohydrates, amino acids, proteins, and lipids will be covered. Fee is required. (7 contact hours) IAIM: BIO 909, CHM 914, NUR 909

**COL—College Introduction****COL 101—(1)****College: Changes, Challenges, Choices**

Provides an opportunity to assess your purpose for college, assess your study strategies, set college and career goals, examine your values and decision-making skills, and develop an appreciation for diversity. This course is a requirement for all entering full-time students. See page 15 for details. (1 contact hour)

**COM—Communications**

**COM-085—(4)**

**Sentence and Paragraph Writing**

This course is designed to help students understand and use the basics of grammar and punctuation with simple, compound and complex sentences, and to use these sentences to develop effective paragraphs. (4 contact hours)

*This course may be taken four times for credit.*

**COM-090—(3)**

**Paragraph and Theme Writing**

*Prerequisite: Grade of "C" or better in COM 085 or appropriate score on placement test*

Understand and write basic paragraphs and short themes. Covers developing the topic sentence, ordering ideas and achieving coherence in paragraphs, and incorporating paragraphs into essays. Credit hours for the course can be applied to full- or part-time student status, but will not count toward graduation credits unless specified in your certificate or degree program. (3 contact hours)

*This course may be taken four times for credit.*

**COM-101—(3)**

**Composition I**

*Prerequisite: Grade of "C" or better in COM-090 or appropriate score on placement test*

Designed to teach clear and effective expository prose, with emphasis on organization, clarity and coherence. Learn to adapt style to various readers and use research to clarify explanations and support arguments. A grade of "C" or better is required for this course to transfer under the guidelines of the Illinois Articulation Initiative (IAI). Fee is required. (3 contact hours) IAI: C1 900R

**COM-102—(3)**

**Composition II**

*Prerequisite: COM-101*

Analytical and critical writing based on the types of literature. Research is used to incorporate supporting ideas from critics in essays of literary analysis. A grade of "C" or better is required for this course to transfer under the guidelines of the Illinois Articulation Initiative (IAI). Fee is required. (3 contact hours) IAI: C1 901

**COM-103—(3)**

**Speech Fundamentals**

Introduction to basic oral communication principles and skills, challenges of cultural diversity and gender equity. Includes study and practice in public speaking and discussion, preparation and organization, and delivery techniques. This course satisfies the requirements of Public Act 87-581. (3 contact hours) IAI: C2 900

**COM-105—(1)**

**Writing Laboratory**

Develops job-related communication skills, research paper skills and writing skills for personal improvement. Credit hours for the course can be applied to full- or part-time student status, but will not count toward graduation credits unless specified in your certificate or degree program. (2 contact hours)

*This course may be taken four times for credit.*

**COM-106—(3)**

**Creative Writing, Poetry**

*Prerequisite: COM-101 or consent of instructor*

This course is an examination and application of prosody, textual conventions, and theories of writing poetry through analysis and student writing. (3 contact hours) IAIM: EGL 922

**COM-107—(3)**

**Creative Writing, Fiction**

*Prerequisite: COM-101 or consent of instructor*

This course is an exploration and application of techniques, conventions and theories of writing fiction through analysis and student writing. (3 contact hours) IAIM: EGL 921

**COM-108—(3)**

**Creative Writing Literary Nonfiction**

*Prerequisite: COM-101 or consent of instructor*

This course is an exploration and application of techniques, conventions and theories of writing literary nonfiction through analysis and student writing. The study of nonfiction forms will include memoir, profile, literary journalism, and stories of craft. Additional ways to tell the nonfiction story will also be addressed, including humor, visuals and multigenre pieces. Emphasis will be placed on the writing and creative process. (3 contact hours) IAIM: EGL 924

**COM-111—(3)**

**Technical Communications I**

*Prerequisite: COM-080 or appropriate score on placement test*

Introduces basic theories of communication. Emphasizes writing development, including technical writing, letter writing and grammar. Fee is required. (3 contact hours)

**COM-112—(3)**

**Technical Communications II**

Theory and practice of oral communication are discussed. Emphasizes group discussion, listening skills, and informative and persuasive speaking. (3 contact hours)

**COM-120—(3)**

**Introduction to Linguistics**

Fundamentals of linguistics are covered. Emphasizes speech behavior as interaction. Topics include origins, functions and limitations of language. (3 contact hours)

**COM-123—(3)**

**Applied Forensics**

*Prerequisite: Consent of instructor*

*Corequisite: Participation on Forensics Team*

Includes instruction and practical experience in competitive speech events, such as impromptu and persuasive speaking, rhetorical analysis and oral interpretation. Selection, analysis and preparation of material are covered. Competitive performance is required. Cannot be repeated for credit. (5 contact hours)

**COM-125—(1)**

**Tutoring Internship**

*Prerequisite: COM-101 and COM-102 both with a grade of "C" or better and consent of instructor*

An introduction to tutoring in the Writing Center with emphasis on the interaction between tutor and client, and the options and strategies open to tutors to manage the tutoring session. Includes a review of grammar, writing skills, research and documentation, and a survey of the types of writing done in various disciplines at the college. (1 contact hour)

*This course may be taken four times for credit.*

**COM-151—(1)**

**Student Publications Seminar**

Earn up to four credits for participation in production of student publications. Includes weekly seminars. Teaches communication skills and publication production. (2 contact hours)

**COM-152—(1)**

**Student Publications Seminar**

Earn up to four credits for participation in production of student publications. Includes weekly seminars. Teaches communication skills and publication production. (2 contact hours)

**COM-153—(1)**

**Student Publications Seminar**

Earn up to four credits for participation in production of student publications. Includes weekly seminars. Teaches communication skills and publication production. (2 contact hours)

**COM-154—(1)**

**Student Publications Seminar**

Earn up to four credits for participation in production of student publications. Includes weekly seminars. Teaches communication skills and publication production. (2 contact hours)

**COM-201—(3)**

**Business and Technical Writing**

*Prerequisite: COM-101 or COM-111*

Improves writing in a variety of business and technical fields, both in college and on the job. (3 contact hours)

**COM-203—(3)**

**Interpersonal Communication**

Introduces the study of interaction between people that focuses on the importance of sensitivity to various communications. Provides a communication perspective of interpersonal relationships, covering relational maintenance and decline, listening, conflict, the self-concept, cultural impacts on relationships, and

interpersonal communication in work and family contexts. (3 contact hours) IAIM: SPC 921

**COM-204—(3)**

**Argumentation**

*Prerequisites: COM-101 and COM-103*

This course will emphasize principles and methods of critical decision-making through argumentation and debate, including analysis of issues; collection and evaluation of evidence; evaluation of argument and reasoning; and techniques of attack and defense in oral argumentation. Students will engage in formal debate. (3 contact hours) IAI: SPC 913

**COS—College Skills**

**COS-100—(6)**

**College Skills I**

Techniques to improve reading skills are discussed. Includes word attack, comprehension, interpretation, skimming, scanning, listening, note taking, test taking, and study methods. Credit hours for the course can be applied to full- or part-time student status, but will not count toward graduation credits unless specified in your certificate or degree program. (var variable contact hours)

*This course may be taken four times for credit.*

**CRJ—Criminal Justice**

**CRJ-101—(3)**

**Introduction to Criminal Justice**

Covers the American criminal justice system and its processes. Introduces crime statistics, crime causation theories, and criminal law as tools of the justice system; the function of law enforcement, courts and corrections; a sampling of international criminal justice systems; and career opportunities and resources. (3 contact hours) IAIM: CRJ 901

**CRJ-103—(3)**

**Police in American Society**

Examines American law enforcement. Introduces the nature, scope and history of law enforcement; the police function; police-citizen relations; civil rights and civil liability; ethics in policing; organizational, political and social influences; and a range of policing issues. (3 contact hours)

**CRJ-104—(3)**

**Investigation and Criminal Evidence**

Looks at the police investigative process. Emphasizes preliminary and follow-up investigations; collection and preservation of physical evidence at the crime scene; methods used in the scientific interpretation of evidence; and preparation of criminal cases for trial. (3 contact hours)

**CRJ-105—(3)**

**Criminology**

Examines crime and criminal behavior. Introduces criminology; views of crime; major explanations of crime; strategies designed to reduce the crime rate; and types of crime, such as violent, political, organized, and property. (3 contact hours) IAIM: CRJ 912

**CRJ-106—(3)**

**Introduction to Corrections**

Examines the development of the correctional system. Describes the various forms of punishment and presents correctional ideologies, including punishment, treatment and crime prevention. Traditional institutions, community-based programs and other options are analyzed. (3 contact hours) IAIM: CRJ 911

**CRJ-107—(3)**

**Juvenile Delinquency and Procedures**

Covers the juvenile justice system. Introduces the nature, etiology and extent of juvenile crime; functions and jurisdictions of juvenile agencies; juvenile processing, detention and case disposition; and contemporary issues in juvenile justice. (3 contact hours) IAIM: CRJ 914

**CRJ-110—(3)**

**Introduction to Homeland Security**

This course provides an overview of homeland security as a major contemporary issue in the public safety fields, and introduces the major themes and issues in homeland security. Students will examine the roles of the emergency management system, including public health and private sector participants. The course will review current legislation, civil liberties, intelligence gathering and counter terrorism indicatives, as well as provide a historical perspective and describe risk assessment and prevention techniques. (3 contact hours)

**CRJ-206—(3)**

**Substantive Criminal Law**

Examines the theory and practice of substantive criminal law. Introduces the definition and classification of crimes, legal principles of criminal conduct, legal elements required for proof of crime, punishment, defenses, and mitigating circumstances. Emphasizes criminal offenses in Illinois. (3 contact hours) IAIM: CRJ 913

**CRJ-207—(3)**

**Procedural Criminal Law**

Covers the theory and practice of procedural criminal law. Introduces the law of arrest, search and seizure; confessions; suspect identification; and electronic surveillance. Emphasizes the criminal law in Illinois and updated decided court cases. (3 contact hours)

**CRJ-210—(1)**

**Special Topics in Criminal Justice**

Students work with instructor individually or in small groups to develop special projects designed to focus on specific criminal justice or related topics. (1 contact hour)

*This course may be taken four times for credit.*

**CRJ-219—(2)**

**Contemporary Issues: Criminal Justice**

Intended primarily for students interested in criminal justice issues, the course examines basic policy problems: legislation, professionalism, education, training, literature and research, procedures, administration, social problems. (2 contact hours)  
*This course may be taken four times for credit.*

**CRJ-233—(3)**

**Internship**

*Prerequisite: CRJ-101, 6 college credit hours in criminal justice, 2.0 or better cumulative grade point average, and consent of instructor/internship coordinator*

*Corequisite: Registration in CRJ-237*

Planned and supervised career field experience relating to the student's degree program. Students will intern in criminal justice agencies or related public service agencies. (15 contact hours)

**CRJ-237—(1)**

**Seminar**

*Prerequisite: CRJ-101, 6 college credit hours in criminal justice, 2.0 or better cumulative grade point average, and consent of instructor/internship coordinator*

*Corequisite: Registration in CRJ-233*

Discusses internship activities and issues. (1 contact hour)

**CSC—Computer Science Transfer**

**CSC-140—(3)**

**Introduction to Computer Science**

*Prerequisite: 3 years of high school math, including precalculus or advanced algebra, and appropriate placement test score, or MTH-141, or consent of instructor*

Designed as an introduction to problem solving, structured logic and programming, this course covers the concepts of an algorithm and its expression as a program. C++ or another high-level language will be used to introduce the topics of top-down design, modularization and structured programming. Programming problems will be chosen from a variety of subject areas. Fee is required. (4 contact hours) IAIM: CS 911

**CSC-206—(3)**

**FORTRAN Programming**

*Prerequisite: 1) Previous experience programming with a structured language, or CSC 140, or consent of instructor, and 2) a first course in calculus, MTH-150 or MTH-145*

The FORTRAN language is used primarily for statistical analysis, simulation, analysis of research data, and other applications involving complex mathematical manipulation. Students write, compile and test programs using a version of FORTRAN. The emphasis in this course is on problem solving and analysis, and not on the intricacies of the FORTRAN language. Students with no prior programming experience are strongly advised to take CSC-140 or its equivalent. Fee is required. (4 contact hours) IAIM: EGR 921, MTH 922

**CSC-240—(3)****Advanced Computer Science**

*Prerequisite: CSC-140 or consent of instructor*

This course is designed as an extension of CSC-140, providing greater in-depth experience in modular structured programming solutions to problems. Topics include record I/O; file processing; advanced array manipulations; searching and sorting algorithms; algorithm efficiency; recursion; OOP methodology; using and creating classes; interfaces; overloading; pointer data types; and an introduction to data structures: linked lists, staks, queues and trees. Good programming documentation and proper problem analysis is expected throughout the course. Fee is required. (4 contact hours) IAIM: CS 912

**CSC-280—(3)****Data Structures with Applications**

*Prerequisite: CSC-240*

An introduction to various data representations and structures such as linked lists, stacks, queues, rings, and trees. Each structure is explored in terms of applicability to various data management situations with programming exercises included to demonstrate design and use in problem solving. Fee is required. (4 contact hours)

**EAS—Earth Science****EAS-120—(4)****Introduction to Earth Science**

An introductory course to acquaint students with the physical environment. Topics include an examination of the earth's composition; plate tectonics, structure and land forms; the atmosphere and major elements and controls of weather in their relationship to climatic characteristics and distributions; the physical characteristics of ocean water, movements and the ocean floor; and the characteristics of the solar system and outer space. This course is particularly suited for students not majoring in the sciences. Fee is required. (6 contact hours) IAI: P1 905L

**EAS-125—(4)****Introduction to Weather and Climate**

This course is an elementary treatment of the processes that produce our weather and climate. Covers the elements of weather and climate (temperature, moisture, pressure, and winds); causes for day-to-day weather changes; and the nature of violent storms such as tornadoes and hurricanes. Climatic regions will be investigated in terms of physical characteristics, locations and associated human activity. Fee is required. (6 contact hours) IAI: P1 905L

**ECO—Economics****ECO-100—(3)****Consumer Economics**

Personal financial management is explored, including financial planning, budgeting, banking, borrowing, credit, taxes, home ownership, renting, life insurance, health and income insurance, estate planning, and consumer protection. (3 contact hours)

**ECO-101—(3)****Principles of Macroeconomics**

Examines basic economic concepts, including unemployment, inflation, production, and fiscal and monetary policy. Completion of two years of high school math including algebra, or MTH-101, is strongly recommended (3 contact hours) IAI: S3 901

**ECO-102—(3)****Principles of Microeconomics**

Studies supply and demand analysis, basic concepts of cost and revenue under various market conditions, income distribution and international trade. Completion of two years of high school math including algebra, or MTH-101, is strongly recommended. (3 contact hours) IAI: S3 902

**ECO-250—(3)****Comparative Economics**

Develop an appreciation and understanding for the philosophies and precepts on which world economic systems are based. Classical economic philosophies are reviewed, and elements of national economics are studied. Discuss various methods and levels of analysis for application purposes. Special focus is given to central European nations. This course is for students who will study at Salzburg College, Austria, and who meet certain academic requirements. (3 contact hours)

**EDU—Education****EDU-100—(3)****Introduction to Education**

*Prerequisite: COM-101*

Provides an introduction to teaching as a profession in the American Education System. Offers a variety of perspectives on education including historical, philosophical, social, legal, and ethical issues in a diverse society. Includes organizational structure and school governance. A clinical component is required. (3 contact hours) IAIM: EDU 090

**EDU-102—(3)****Introduction for Paraprofessional Educator**

This course is designed for students who are considering a career in the education field. This course is designed to cover professionalism, teaching methods and strategies, lesson planning, cooperative learning, assessment techniques and basic school practices and procedures. (3 contact hours)

**EDU-103—(1)**

**Observation/Clinical Experience**

Documented clinical experience(s) based on community collaborations involving observation of and interaction with students and practitioners at work, according to specified guidelines, within the appropriate subject matter and age category. The experience, comprising a minimum of 40 hours, is planned, guided, and evaluated by a supervisor and can occur in a variety of educational settings, including those with diverse populations. (3.5 contact hours) IAIM: ECE 914, EED 904, SED 905, SPE 914

**EDU-104—(3)**

**Introduction to the Foundations of Reading**

Introduction to theory and practice in teaching reading and related language arts areas. Includes information on the basic components of reading instruction and language arts instruction, and the importance of literacy learning. Includes an introduction to the Illinois Learning Standards in the areas of reading and language arts. (3 contact hours) IAI: SPE-912

**EDU-105—(3)**

**Classroom Management**

This course studies the theories of discipline and the implementation of behavior analysis in order to maintain an effective classroom environment. Strategies and their application, which address components of diverse behavioral, cultural and learning theories, are examined. Recognized behavioral interventions to ensure appropriate socialization and learning are researched and utilized. Individual and school wide discipline behavior theories and models are analyzed and applied. (3 contact hours)

**EDU-110—(3)**

**Technology for Educators**

*Prerequisite: Recommended IMS-100 or equivalent computer skills*

This course introduces educators to the knowledge and skills required to demonstrate their proficiency in the current technology standards. This course focuses on both knowledge and performance, and includes hands-on technology activities. (3 contact hours) IAIM: EDU 904

**EDU-111—(3)**

**Students with Disabilities in School**

*Prerequisite: COM-101*

A survey course that presents the historical, philosophical and legal foundations of special education, as well as an overview of the characteristics of individuals with disabilities, methods of instruction, programs that serve them under the Individuals with Disabilities Education Act, and the diversity of the populations of individuals with disabilities. A clinical component is required. (3 contact hours) IAIM: ECE 913, SED 904, EDU 905

**EDU-205—(3)**

**Literature for Children/Young Adults**

*Prerequisite: COM-101*

Survey of the genre of literature for children through young adults, analyzing the social, cultural, and intellectual implications, instruction methodology, including critical thinking assessment, criteria for selection and utilization of literary works-based language development, learning opportunities, and curricular resources in schools and the community. (NOTE: Only 3 credit hours can be earned for either EDU-205 or LIT-205. Duplicate credit in both courses will not be awarded.) (3 contact hours)

**EDU-233—(3)**

**Paraprofessional Educator Internship**

*Prerequisite: EDU-100, EDU-102 and EDU-103 and consent of instructor*

*Corequisite: Registration in EDU-237*

An extensive clinical field experience based in community collaboration involving a working observation of and interaction with practitioners in the field. This experience is evaluated and under the guidance of the classroom teacher/supervisor and college instructor. This course comprises a minimum of 225 contact hours and includes instructional planning, classroom management, use of technology, diversity considerations, use of varied instructional methodologies, collaboration assessments, and reflection. (15 contact hours) IAIM: EED 904

**EDU-237—(1)**

**Paraprofessional Educator Seminar**

*Prerequisite: EDU-100, EDU-102 and EDU-103 and consent of instructor*

*Corequisite: Registration in EDU-233*

Students demonstrate the knowledge, performance and disposition for teaching. Emphasis is on the completion of teaching-learning skills, reflective practices and an understanding of the field of education, demonstration by portfolio and authentic assessments. (1 contact hour)

**EDU-250—(3)**

**Comparative Education**

This course compares the educational system (preschool through higher education) in European states with special consideration of Austria, England, Germany, Ireland, France, and Italy. Current trends and reforms are considered. This course is for students who will study at Salzburg College, Austria, and who meet certain academic requirements. (3 contact hours)

**EGN—Engineering**

**EGN-150—(3)**

**Engineering Graphics**

*Prerequisite: Registration in MTH-141, MTH-142*

The graphic description of objects in three dimensions and the application of graphic methods to solution of three-dimensional space problems are included. Covers orthographic projection of points, lines, planes, and solids, and the relative positions of these elements. Includes sections, conventions and dimensioning, tolerance systems, surface intersections, developments, vectors, and pictorial systems. Fee is required. (5 contact hours) IAIM: EGR 941, MTM 911

**EGN-201—(3)**

**Engineering Statics**

*Prerequisite: PHY-203; registration in MTH-152 or consent of instructor*

Analyze one-, two- and three-dimensional force systems in equilibrium. Includes use of vector calculus. Applications include trusses and frames. Includes discussion of friction, centroids and virtual work. (3 contact hours) IAIM: EGR 942

**EGN-202—(3)**

**Engineering Dynamics**

*Prerequisite: PHY-203*

*Corequisite: Registration or credit in MTH-152 or consent of instructor*

Kinematics and dynamics of particles and rigid bodies using the calculus of vectors are studied. Nonrectangular coordinates and Newton's laws of motion, work, energy, and momentum are applied to a variety of problems. Introduces Lagrange's equations and the Hamiltonian Principle. (3 contact hours) IAIM: EGR 943

**ELT—Electronics**

**ELT-101—(3)**

**Electricity and Electronics**

*Corequisite: MTH-133 recommended or MTH-098 or MTH-120 or MTH-135 or MTH-141 or MTH-150*

This course provides a practical approach to DC and AC electricity and electronics. The course provides an introduction to electricity and magnetism; circuit elements; series, parallel and simple complex circuits. The course will include the characteristics and operation of capacitors and capacitance, inductors and inductance, and reactive circuits. Applications of resonance and transformers also will be introduced. The course will provide hands-on exercises and computer simulation in the use of test equipment and circuit troubleshooting. (4 contact hours)

**ELT-102—(3)**

**Digital Logic/Solid State Devices**

*Corequisite: Registration or credit in ELT-101*

This course provides a practical approach to the study of digital and integrated devices. The course will include the study of logic gates, flip-flops, latches, counters, encoders/decoders, multiplexers, arithmetic circuits, oscillators, timers, analog-to-digital circuits, solid-state memory, and operational amplifiers. In addition, study solid state circuits and devices. The course will include the study of diodes, transistors, FETS, thyristors, and optoelectronic devices. Examination of common circuits will include power supplies, amplifiers, solid-state switches, and regulators. (4 contact hours)

**ELT-112—(1)**

**Computers for Industry**

This course provides a basic introduction to the computer hardware and software. The emphasis is on the software, with a basic introduction to DOS, Windows, Windows applications, and batch file programming. Fee is required. (2 contact hours)

**ELT-201—(3)**

**Industrial Controls**

*Prerequisite: ELT-101 or consent of instructor*

Provides an in-depth study of electrical controls in an industrial environment. Topics include power distribution basics, motor control circuits, pilot devices, timers, counters, photoelectric and proximity switches. Examine DC and AC motor operation and characteristics. Fee is required. (4 contact hours)

**ELT-202—(3)**

**Advanced Industrial Controls**

*Prerequisite: ELT-102 and ELT-201*

Examines the application of digital circuits, trigger circuits, and thyristors in power and control circuits. Closed loop systems, PID, transducers, and motor controls will also be studied. An examination of control wiring and power distribution will also be examined. Fee is required. (4 contact hours)

**ELT-211—(3)**

**Introduction to PLCs**

Introduction to programmable logic controllers. Explore the history of their evolution in industry; fundamental concepts and programming methods; RLL programming, counters, timers and shift registers; PC online programming and monitoring; and installation, troubleshooting and monitoring. Fee is required. (4 contact hours)

**ELT-222—(3)**

**Advanced PLCs**

*Prerequisite: ELT-211*

Examines the application of programmable logic controllers in the areas of advanced I/O, PLC network, and factory automation. Program design, documentation, testing, and troubleshooting are investigated. Fee is required. (4 contact hours)

**ELT-260—(1)**

**Internship**

*Prerequisite: 12 credit hours in ELT*

This course is a supervised occupational field experience in a student's area of study in electronics and/or process control and manufacturing industries. Duties should be of a technical nature, but provide broad work experience in the field of study. The internship assignment is planned by the student and internship program coordinator. Fee is required. (5 contact hours)

**EMS—Emergency Medical Services**

**EMS-100—(2)**

**First Responder**

Develops functional emergency procedures for fire and police service personnel who may be required to provide the initial care to sustain life and maintain life support until the victims of accidents or sudden illnesses are cared for by qualified medical personnel. Includes artificial respiration, poisoning, burns, dressings and bandages, fractures, emergency childbirth, bone and joint injuries, emergency rescue and transfer, and extrication. (2 contact hours)

**EMS-101—(6)**

**Emergency Medical Technician**

*Prerequisite: Valid CPR card; Hepatitis B vaccination or waiver stating refusing shots*

Provides instruction for students to the level of Emergency Medical Technician—Basic. Emphasizes all skills necessary to provide emergency medical care at a basic life support level with an ambulance service or other specialized service. Fee is required. (8.5 contact hours)

**EMS-102—(9)**

**EMT-Paramedic I**

*Prerequisite: Illinois Emergency Medical Technician "B" certification*

Provides classroom training and clinical experience to enable students to become state-certified paramedics. Examines the role and responsibility of the paramedic in the health care delivery system, including an overview of human body systems, basic general pharmacology, medical terminology, patient assessment and examination, fluid therapy, and an in-depth study of the respiratory system. Fee is required. (15 contact hours)

**EMS-103—(8)**

**EMT-Paramedic II**

*Prerequisite: Emergency Medical Technician B licensure and EMS 102*

This course is an in-depth study of the cardiovascular system, and the study of epidemiology, anatomy and physiology, pathophysiology, assessment and management of the following patients: gynecologic, obstetric, neonate, pediatric, infectious, endocrine, gastrointestinal, urological, neurological, and psychiatric patients. The management of substance abuse and toxic emergency patients are discussed. (15.3 contact hours)

**EMS-104—(8)**

**EMT-Paramedic III**

*Prerequisite: Emergency Medical Technician B licensure, EMS 102, EMS 103*

This course covers the anatomy and physiology and management of the geriatric client, environmental and hematological emergencies, anaphylaxis, allergies, the challenged patients and chronic care patients. Examines the EMS considerations for violent situations and crime scenes and hazardous material situations. Also covers the pathophysiology and management of the musculoskeletal system and of trauma, including soft tissue injuries, burns, hemorrhage and shock. (15.1 contact hours)

**EMS-233—(5)**

**EMT-Paramedic-Internship**

*Prerequisite: EMS 102; completion of Cardiac Mod in EMS 103*  
*Corequisite: registration in EMS 103 and EMS 104*

The student, while under the direct supervision of a certified paramedic, will accumulate a minimum of 248 hours of actual ambulance service (including a minimum of 50 calls, 25 of which must be Advanced Life Support responses). Included in the above calls, the student must serve as Team Leader in at least 50 calls. Fee is required. (16.5 contact hours)

**EMS-237—(5)**

**EMT-Paramedic-Seminar**

*Prerequisite: EMS 102; completion of Cardiac Mod in EMS 103;*  
*Corequisite: registration in EMS 103, 104 and 233*

These semiweekly seminars allow the paramedic intern to present case studies to the EMS instructor and classmates as related to the Region VII Standard Medical Orders. The student will also be required to successfully complete ACLS, PHTLS, and PALS courses in order to graduate and complete EMS 237. Upon successful completion, the student is eligible to take the State of Illinois Certification Examination for Paramedics. (16.5 contact hours)

**FIS—Fire Science Technology**

**FIS-101—(3)**

**Principles of Fire Science**

The history and development of public fire protection services of federal, state and local governments are covered. Explores the relationship of departmental functions to other governmental agencies and industrial/commercial organizations. Characteristics and behavior of fire, primary extinguishing agents and municipal fire defense are included. (3 contact hours)

**FIS-103—(3)**

**Fire Prevention Principles I**

*Prerequisite: Office of the State Fire Marshal Firefighter II Certification*

In this course, students develop an understanding of the purpose and objectives of fire prevention codes and ordinances in relation to building construction, fire protection systems and field inspection techniques. (3 contact hours)

**FIS-104—(3)**

**Fire Protection Systems**

Studies basic built-in fire detection, alarm and extinguishing systems. Examines devices and systems installed in buildings to protect life and property, and to support the fire department through early detection and control. (3 contact hours)

**FIS-105—(3)**

**Industrial Fire Protection**

Studies recommended practices for protection of industrial properties and processes from fire, explosion and damage peculiar to certain types of public and private industry. Includes organization and training of plant fire brigades. (3 contact hours)

**FIS-106—(3)**

**Fire Suppression Apparatus and Equipment**

Basic principles of construction and use of fire apparatus and related equipment are included. Apparatus operation and maintenance of pumps, pumper procedures, tests, aerial ladders, and aerial platforms are covered. Elementary fireground hydraulic calculations are studied. (3 contact hours)

**FIS-107—(3)**

**Fire Fighting Tactics and Strategy I**

*Prerequisite: FIS-103*

Studies various areas of basic fire fighting tactics and strategy, including pre-fire planning, apparatus requirements, initial attack, and confinement problems unique to different types of building construction. (3 contact hours)

**FIS-110—(1)**

**Hazardous Materials Awareness**

Designed to give the student the knowledge necessary to implement a planned response to a hazardous materials circumstance. Emphasizes surveying the incident scene and collecting hazardous materials information. (1 contact hour)

**FIS-111—(1)**

**Hazardous Materials Incident**

*Prerequisite: Office of the State Fire Marshal Firefighter II Certification*

Offers the individual skills necessary to direct and coordinate all aspects of a hazardous materials incident. Skills include the knowledge and ability to implement the incident management system, importance of the decontamination systems, and knowledge of the overall incident operations with emphasis on hazards when employees are working in chemical protective clothing at an incident. (1 contact hour)

**FIS-112—(3)**

**Building Construction for Fire Safety**

An in-depth analysis of the various classifications of building construction, types of construction materials, and structural design. Includes fire resistance ratings, fire detection and suppression systems, and life safety considerations. Introduces building and fire codes and laws. (3 contact hours)

**FIS-113—(1)**

**Technical Rescue Awareness**

*Prerequisites: FIS-101 and EMS-101, or Office of the State Fire Marshal Firefighter II Certification*

This course provides instruction in the identification of situations requiring a technical rescue. Several methods of technical rescue will be discussed, including structural collapse, confined space, vehicle, machinery, and water. Safety measures required at each type of rescue will be emphasized. (1 contact hour)

**FIS-114—(3)**

**Fire Investigation**

Develops proper techniques and procedures for investigating fires, and determining the point of origin and cause of a fire. Discusses preservation of evidence, burn patterns, fire behavior, and incendiarism. (3 contact hours)

**FIS-201—(3)**

**Fire Service Instructor I**

*Prerequisite: FIS-103*

Introduces fire service course delivery skills. This course meets the guidelines of the Illinois Office of State Fire Marshal at Instructor I level. Qualifies personnel to conduct training and educational courses for fire service personnel. (3 contact hours)

**FIS-202—(3)**

**Fire Service Instructor II**

*Prerequisite: FIS-201*

A sequel to Fire Service Instructor I. Emphasis is on performance objectives, lesson plan development, instructional materials development, teaching and the learning process, teaching tactics, and related concepts required to meet certification as a Fire Service Instructor II. (3 contact hours)

**FIS-203—(3)**

**Fire Apparatus Engineer**

*Prerequisite: Office of the State Fire Marshal Firefighter II Certification*

Studies properties of pumps, fluids, force, pressure, and flow velocities as related to the development of fire fighting water streams. Emphasizes generation of fire streams in relationship to pumping capabilities, friction loss and water supply. Students will be able to operate various fire apparatus pumps and troubleshoot problems. (3 contact hours)

**FIS-204—(3)**

**Hazardous Materials Operations**

*Prerequisites: FIS-101 and EMS-101, or Office of the State Fire Marshal Firefighter II Certification*

This course studies hazardous materials emergencies. Topics include classification of hazardous materials, identifying hazardous materials, locating hazardous materials, hazards linked to different hazardous materials, and various fire department strategies followed to minimize the effects of hazardous materials incidents. (3 contact hours)

**FIS-205—(3)**

**Fire Service Management I**

*Prerequisite: FIS-103*

Studies the role of the fire service company officer. Emphasizes the management functions of planning, organizing, staffing, directing, and controlling. Meets requirements for Management I as defined by the Illinois Office of the State Fire Marshal. (3 contact hours)

**FIS-206—(3)**

**Vehicle Rescue Operations**

*Prerequisite: FIS-113*

This course is designed to develop student skills in the use and care of extrication equipment needed to perform in rescue, extrication and hazard control functions. Upon successful completion of this course, the student is qualified for state certification as an emergency rescue technician. Fee is required. (4 contact hours)

**FIS-207—(3)**

**Fire Fighting Tactics and Strategy II**

*Prerequisite: FIS-107 or consent of instructor*

Studies various areas of fire fighting tactics and strategy. Provides the chief officer with fundamental knowledge required to operate at multicompany, extra-alarm fires. Covers disaster planning and hazardous materials incident management. (3 contact hours)

**FIS-209—(3)**

**Fire Service Management II**

*Corequisite: Registration or credit in FIS-205 or consent of instructor*

Designed to provide the student who is in charge of a single fire company or station with information and skills in personnel management. This course covers basic communications, report writing, interpersonal communications, group dynamics, safety, conflict resolution, and stress management. (3 contact hours)

**FIS-210—(3)**

**Fire Service Management III**

*Prerequisite: FIS-205, FIS-209 or consent of instructor*

Studies the role of the fire officer who is in charge of multiple fire companies or stations. Emphasizes skills in officer supervision and administrative functions. Includes decision making, budgeting and finance, risk management, public relations, and the news media. (3 contact hours)

**FIS-211—(3)**

**Fire Service Management IV**

*Prerequisite: FIS-210 or consent of instructor*

Studies the role of the fire officer in personnel management. Includes performance evaluation, coaching and counseling skills, interviewing techniques, labor relations and collective bargaining, fire officer liability, and team building. (3 contact hours)

**FIS-212—(3)**

**Fire Prevention Officer I (Module A)**

*Prerequisite: Office of the State Fire Marshal Firefighter II Certification*

This course introduces the student to the roles and responsibilities of the Fire Prevention Officer. Significant events in the history of fire prevention are discussed. Regulations for working with hazards as established by agencies such as the National Fire Protection Agency and state statutes are explored. (3 contact hours)

**FIS-213—(3)**

**Fire Prevention Officer I (Module B)**

*Prerequisite: FIS-212*

This course introduces the student to the roles and responsibilities of the Fire Prevention Officer-associated hazards involving flammable liquids, compressed gases and explosives, electricity, combustion engines, and laboratories. Regulations established by regulatory agencies such as the National Fire Protection Agency and state statutes are explored within the context of administrative procedures associated with fire prevention. (3 contact hours)

**FIS-214—(3)**

**Fire Prevention Officer I (Module C)**

*Prerequisite: FIS-212 and FIS-213*

This course prepares the student to design and deliver fire prevention programs to a variety of audiences, including children, senior citizens, and other civic groups. Resources available for program development will be explored. Mechanisms of fire prevention program evaluation also are surveyed. (3 contact hours)

**FRE—French**

**FRE-101—(4)**

**French I**

A course designed for beginning students in French to give practice in the fundamentals of speaking, understanding, reading, and writing everyday French. (4 contact hours)

**FRE-102—(4)**

**French II**

*Prerequisite: FRE-101 or 2 years of high school French*

A second-semester course designed for further development of linguistic skills by giving students in French practice in the fundamentals of speaking, understanding, reading, and writing everyday French. (4 contact hours)

**FRE-201—(4)**

**French III**

*Prerequisite: FRE-102 or 3 years of high school French*

This comprehensive review of grammar elements includes reading based on French civilization. Geographical, historical and literary viewpoints are covered. Increased use of French in class discussions is expected. (4 contact hours)

**FRE-202—(4)**

**French IV**

*Prerequisite: FRE-201 or 4 years of high school French*

Emphasizes mastery of basic language skills of aural comprehension, speaking, reading, and writing. Includes interpretation and discussion of selected novel or play. (4 contact hours) IAI: H1900

**GEL—Geology**

**GEL-150—(4)**

**Physical Geology**

Introduces geological study of the earth. Geological principles and processes dealing with geomorphology, crustal movements, rock and mineral identification, volcanism, and sedimentation are covered. Includes aerial photo and topographic map interpretations and extensive field work in laboratory experiences. Fee is required. (6 contact hours) IAI: P1907L

**GEL-151—(4)**

**Historical Geology**

*Prerequisite: GEL-150*

Introduces origin and structure of the earth. Emphasizes North America, growth of continents and mountain building. Studies evolution in plant and animal life as documented by fossil remains. Interpretation of geologic forces by means of topographic maps, geologic folios, aerial photos, and extensive field work are important segments of laboratory experiences. Fee is required. (6 contact hours)

**GEO—Geography**

**GEO-101—(3)**

**Cultural Geography**

Analyzes special distribution and relationship among significant cultural factors. Population distribution and trends, human migration, settlement patterns, and urban problems are discussed. (3 contact hours) IAI: S4900N

**GEO-102—(3)**

**World Regional Geography**

Major geographic regions of the world are explored. Includes geographic analysis of physical environments, and relationships between humans and physical environments. Influence of human existence on the environment is discussed. (3 contact hours) IAI: S4900N

**GEO-201—(3)**

**Economic Geography**

Studies spatial distribution and interaction of economic activities. Analyzes tribal, traditional and modern economic societies. Emphasizes significance of urban industrial society and modern transportation. (3 contact hours) IAI: S4903N

**GER—German**

**GER-101—(4)**

**German I**

Speak and understand everyday German. Develops reading ability, introduces grammar and studies pronunciation. (4 contact hours)

**GER-102—(4)**

**German II**

*Prerequisite: GER-101 or 2 years of high school German*

Offers continued practice in speaking and understanding everyday German, including pronunciation. Emphasizes reading. Studies essentials of grammar and the influence of German culture and immigrants on the United States. (4 contact hours)

**GER-201—(4)**

**German III**

*Prerequisite: GER-102 or 3 years of high school German*

Introduces German culture. Reviews grammar. Emphasizes writing skills development. (4 contact hours)

**GER 202—(4)**

**German IV**

*Prerequisite: GER-201 or 4 years of high school German*

An introduction to literature, this course is also a continued review of grammar and further development of writing skills. (4 contact hours) IAI: H1900

**GER 250—(2)**

**Beginning German Conversation**

This course is designed for beginners, accompanying the grammar-oriented German I course. The structure of the course includes dialogues and short texts, vocabulary and phrases, and language functions applied in various situations. This course is for students who will study at Salzburg College, Austria, and who meet certain academic requirements. (2 contact hours)

**HAC—Heating and Air Conditioning**

**HAC-105—(3)**

**Air Conditioning Theory**

Covers basic definitions and physics used in refrigeration. Gain working knowledge of properties of air and body comfort. Emphasizes air conditioning components and how they contribute to comfort. (3 contact hours)

**HAC-111—(4)**

**Introduction to Controls**

Covers electrical theory as it applies to servicing and installation of refrigeration, air conditioning and heating equipment. Emphasizes safety controls, motor circuits and space comfort control. Fee is required. (6 contact hours)

**HAC-115—(4)**

**Basic Service Procedures**

Provides knowledge needed in proper use of meters and gauges for diagnosing and solving problems. Fee is required. (6 contact hours)

**HAC-140—(4)****Sheet Metal Hand Forming**

Provides the knowledge required in the utilization of forming and shaping sheet metal with the use of hand and machine tools. Utilizes previously learned skills in blueprint reading and layout to visualize and shape geometric designs. Fee is required. (6 contact hours)

**HAC-150—(4)****Advanced Control Systems**

*Prerequisite:* HAC-111

Installation, diagnosis and servicing of electrical systems used in split residential and small commercial air conditioning and refrigeration systems are covered. Emphasizes advanced control system needed to achieve comfort and safety. Fee is required. (6 contact hours)

**HAC-154—(4)****Installation and Service**

*Prerequisite:* HAC-115

Covers proper procedures for installing and servicing residential and commercial air conditioning, heating and refrigeration equipment. Emphasizes proper selection and use of tools. Fee is required. (6 contact hours)

**HAC-158—(4)****Introduction to Heating**

*Prerequisite:* HAC-111

Explores various types of heating systems and servicing involved with each system. Fee is required. (6 contact hours)

**HAC-180—(4)****Electronic Controls**

*Prerequisite:* HAC-111

Provides the knowledge required in the proper installation and diagnostic problem solving of electronic, solid state controls and circuits. Fee is required. (4 contact hours)

**HAC-233—(1)****Seminar**

*Prerequisite:* Student must be in the last semester of or have completed the HAC program

*Corequisite:* Enrollment in HAC-237 and consent of instructor

Discussion of internship activities and problems, a student's performance, and any questions arising out of an internship. Development of professional attitude. Course strives to narrow the gaps between theory and on-the-job reality. (1 contact hour)

**HAC-237—(3)****Internship**

*Prerequisite:* Student must be in the last semester of or have completed the HAC program

*Corequisite:* Enrollment in HAC-233 and consent of instructor

At HAC internship sites under the supervision of a technician, students will conduct installations and diagnostic problem solving on HVAC equipment. (15 contact hours)

**HIS—History****HIS-101—(3)****Western Civilization I**

Surveys national, political, institutional, socio-economic, intellectual, religious, and cultural development of the West from ancient times to 1715, with an emphasis on later developments. (3 contact hours) IAI: S2 902

**HIS-102—(3)****Western Civilization II**

Discusses the rise and decline of Western global dominance. Focuses on revolutionary developments in government, economics, science, and the arts since 1715. (3 contact hours) IAI: S2 903

**HIS-105—(3)****The World Since 1945**

Covers Soviet-American rivalry and the growing prominence of the newly independent Third World states. Emphasizes effects of international organizations and technology. (3 contact hours)

**HIS-201—(3)****American History I**

This survey-and-problems approach to American history from the Colonial Period through the Reconstruction Era covers intellectual, social and economic concepts. (3 contact hours) IAI: S2 900; IAIM: HST 911

**HIS-202—(3)****American History II**

This survey-and-problems approach to American history from the Gilded Age to the present covers the rise of modern industry, new social thought and international involvement. (3 contact hours) IAI: S2 901; IAIM: HST 912

**HIS-204—(3)****African-American History**

Covers the great African empires to the contemporary scene. Emphasizes problems of blacks and contributions of blacks to civilization. (3 contact hours)

**HIS-207—(3)****Illinois and Local History**

Covers major developments in Illinois and metropolitan Chicago from the prehistoric period to the present. Influence of major events, individuals, urbanization, and industrialization on the state's progress is discussed. (3 contact hours)

**HIS-210—(3)****History of Asia**

Surveys south, southeast and east Asian history from prehistoric times through World War II. Emphasizes religions and cultures, and early states. Western imperialism, the effect of World War II on Asian nationalism, and independence movements are examined. (3 contact hours) IAI: S2 908N

**HIS-211—(3)**

**American Military Experience**

Studies evolution of the United States military and its interrelationship with American society, government and economy. Includes popular attitudes, civilian control, military institutions, interservice rivalry, technology, ethics, limited and unlimited war, preparedness, and major campaigns. (3 contact hours)

**HIS-215—(3)**

**History of Africa**

Surveys ancient times to the present, providing an overview of African people and their culture in the Orient, the Iberian peninsula and the African continent. Addresses major issues such as the impact of European expansionism, imperialism and colonialism; the growth of secularism and commercialism; and the emergence of national sovereignty, cultural hegemony and self-determination. (3 contact hours) IAI: S2 906N

**HIS-220—(3)**

**History of Latin America**

Covers significant political, economic and social developments in the history of Latin America, emphasizing certain key nations, including Mexico, Argentina and Brazil. (3 contact hours) IAI: S2 910N

**HIS-230—(3)**

**History of the Middle East**

A study of the historical development of the Middle East, focusing on the rise and spread of Islam, growing Western dominance, the rise of nationalism, and modernization of the area as it exists today. Arab countries, Israel, Iran, and Turkey are covered. (3 contact hours)

**HIS-250—(3)**

**Survey of British History I**

Conveys a broad perspective on British history to 1714 focusing on three major themes: the development of social and religious life in Britain; relations between England, Scotland, Wales, and Ireland; and links with Europe and the wider world. This course is for students who will study at Christ Church College, Canterbury, England, and who meet certain academic requirements. (3 contact hours)

**HIS-251—(3)**

**Survey of British History II**

A broad perspective on British history from 1714 focusing on three major themes: the development of social and religious life in Britain; relations between England, Scotland, Wales, and Ireland; and links with Europe and the wider world. This course is for students who will study at Christ Church College, Canterbury, England, and who meet certain academic requirements. (3 contact hours)

**HIS-254—(3)**

**European Cities**

Study European communities and institutions, and development of cities and urban social life. Covers urban planning and the response to growth, change and industrialization. Examine current life in European cities, and problems and comparisons to American cities, including social stratification, race and ethnic relations, growth, and regional planning. This course is for students who will study at Salzburg College, Austria, and who meet certain academic requirements. (3 contact hours)

**HSC—Health Sciences Careers**

**HSC-100—(2)**

**Basic Nursing Concepts**

*Prerequisite: Current LPN licensure and admission to ADN program or faculty recommendation for ongoing ADN students. For students who graduated five years or more ago from a nursing program, admission and awarding of credit for prior learning will be based on individual assessment. Students graduating from non-NLN accredited nursing programs will apply for transfer based on individual competencies, not the program articulation mandates set forth in the Illinois Articulation Agreement.*

This course will serve as a review and update of content covered in a practical nursing program. It also will include an orientation to the Nursing A.A.S. Program and professional nursing to assist L.P.N.s successful transition to the new role. The course will focus on utilizing the nursing process with emphasis on assessment, nursing diagnosis, planning of interventions, and evaluation of care. Nursing content and concepts related to commonly occurring alterations will be reviewed, as well as principles of selected psychomotor skills. Demonstration of competencies appropriate to this level student will be required. (2 contact hours)

**HSC-110—(3)**

**Introduction to Health Professions**

This course is an overview of the health care industry, including medical ethics and law, trends in health care, and exploration of career options. It includes an introduction to medical terminology, anatomy and physiology, vital sign measurement, math for conversions, basic cardiac life support skills, and universal precautions training. (4 contact hours)

**HSC-150—(7)**

**Basic Nurse Assistant Training**

*Prerequisite: 17 years of age; RDG-071 or placement at or above RDG-091 level; Valid U.S. Social Security Number*

*Corequisite: Verified/pass of criminal background check; CPR for Health Care Providers or current certification in CPR.*

Upon successful completion of this 144-hour course, approved by the Illinois Department of Public Health, students may apply for the State certification exam and subsequent employment as a Certified nurse Aide in long-term care facilities, home health agencies, and hospitals. Lecture and lab sessions will be conducted on campus, with clinical rotations conducted at long-term care facilities. Participation requires: MVCC student ID, uniform, stethoscope, textbooks, wristwatch with second hand, health insurance, physical examination with required titer lab tests and two-step TB Mantoux skin test by the fourth week of the course. A valid U.S. Social Security number is required to be eligible for the State of Illinois Nurse Aide certification exam and placement in the State Registry. To continue in this course, it is mandatory that all students complete a criminal background check application at the first class session. The attendance policy requires no more than 12 hours' absence in lecture sessions only. Students must attend all lab and clinical sessions, as makeup sessions are not available for these sessions. Clinical schedule times will vary dependent upon site.

**HUM—Humanities**

**HUM-101—(3)**

**Western Humanities I: Foundations**

This interdisciplinary course surveys artistic and intellectual expression from ancient Greece and Rome, the Middle Ages in Europe, and the Renaissance in Europe. It will explore works, figures, ideas, movements, and styles in history, literature, philosophy, religion, and the visual and performing arts that are significant to, representative of, and foundational to Western culture. (3 contact hours) IAI: HF902

**HUM-102—(3)**

**Western Humanities I: Continuities**

This interdisciplinary course surveys artistic and intellectual expression in Europe from the 17th century to the present. It will explore works, figures, ideas, movements, and styles in history, literature, philosophy, religion, and the visual and performing arts that are significant to, representative of, and foundational to Western culture. (3 contact hours) IAI: HF903

**HUM-104—(3)**

**Non-Western Humanities**

This interdisciplinary course surveys artistic and intellectual expression in the non-Western cultures of the indigenous Americas, Africa, Asia, the Middle East, and Oceania. It will explore works, figures, ideas, movements, and styles in history, literature, philosophy, religion, and the visual and performing arts that are significant to, representative of, and foundational to these non-Western cultures. (3 contact hours) IAI: HF904N

**HUM-115—(3)**

**World Mythology**

This comparative survey course will explore representative myths, stories, legends, tales, archetypes, motifs, icons, symbols, deities, heroes, rituals, etc., of various geographic areas and time periods from both Western and non-Western cultures. Adjunctively, it will explore the nature and function of mythology, its role in human life, its historical and prehistorical origins, the similarities and differences among mythologies of various cultures, and a variety of theoretical approaches to interpreting mythology. (3 contact hours) IAI: H9901

**HUM-120—(3)**

**Women in the Humanities**

This interdisciplinary course surveys the artistic and intellectual expression of women, from a variety of Western and non-Western cultures, from antiquity to the present. It will explore significant, representative, and foundational works, figures, ideas, movements and styles in history, literature, philosophy, religion, and the visual and performing arts, particularly within the contexts of gender identity and consciousness and the influence of gender on both the generation and reception of historical, philosophical, religious and artistic expression. (3 contact hours) IAI: HF 907D

**HUM-249—(3)**

**British Culture and Society**

The course looks at contemporary social, cultural and political life in Britain. Examine and analyze data on the family, leisure and economy. An introduction through lectures and visits to the heritage of British art and theater. Look at British political life and Britain's developing relations with the Commonwealth, Europe and the United States. This course is for students who will study at Christ Church College, Canterbury, England, and who meet certain academic requirements. (3 contact hours)

**HUM-251—(3)**

**Austrian Civilization**

This course is an introduction to Austrian history and culture. It focuses on historical, musical and artistic heritage of Austria ending with a survey of Austrian life today. This course is for students who will study at Salzburg College, Austria, and who meet certain academic requirements. (3 contact hours)

**IEL—Intensive English Language Program (IELP)**

**IEL-062—(4)**

**Beginning Intensive Speech**

*Prerequisite: IELP assessment*

*Corequisite: IEL-082 and/or IEL-072 and/or IEL-092*

This course is designed for the beginning ESL/international student who is not proficient in basic English conversation. The course emphasizes oral communication skills through an interactive approach. The course includes essential pronunciation and listening skills, as well as basic grammatical structures and patterns. In addition to listening and speaking, reading and writing are included. (6 contact hours)

*This course may be taken four times for credit.*

**IEL-064—(3)**

**Intermediate Intensive Speech**

*Prerequisite: Grade of "C" or better in IEL-062 and/or IELP assessment*

This course is designed to enable intermediate academic ESL/international students to gain confidence and accuracy in speaking and listening, and to develop effective oral communication skills. It focuses on public speaking, small-group discussion, verbal idioms, and pronunciation. The course incorporates individual effort and group interaction to create the students' learning experiences. (4 contact hours)

*This course may be taken four times for credit.*

**IEL-066—(3)**

**Advanced Intensive Speech**

*Prerequisite: Grade of C or better in IEL-064 and/or IELP assessment*

This course is designed for the advanced ESL/international student to develop more effective, confident and comfortable oral communication. It focuses on improvement of conversation. The course also teaches high-frequency idioms. (4 contact hours)

*This course may be taken four times for credit.*

**IEL-072—(2)**

**Beginning Intensive Grammar**

*Prerequisite: IELP assessment*

This course is designed for beginning-level academic ESL/international students who read and write in their own languages and who have some ability to connect words in simple sentences in English. This course includes an introduction to the basic points of English grammar, spelling and usage. (3 contact hours)

*This course may be taken four times for credit.*

**IEL-074—(2)**

**Intermediate Intensive Grammar**

*Prerequisite: IELP assessment and/or grade of "C" or better in IEL-072*

This course is designed for intermediate-level academic ESL/international students to comprehend and use the basics of grammar and punctuation with simple, compound and complex sentences, and to use these sentences to develop effective paragraphs. (3 contact hours)

*This course may be taken four times for credit.*

**IEL-076—(2)**

**Advanced Intensive Grammar**

*Prerequisite: IELP assessment or grade of "C" or better in IEL-074*

This course is designed for the advanced ESL/international student. This course presents more difficult aspects of English grammar, spelling and syntax. (3 contact hours)

*This course may be taken four times for credit.*

**IEL-082—(3)**

**Beginning Intensive Writing**

*Prerequisite: IELP assessment*

This course is designed for beginning-level academic ESL/international students who read and write in their own languages and who have some ability to connect words in simple sentences in English. This course's writing component includes sentence patterns and paragraph structure. This course also provides listening, reading and speaking components. (5 contact hours)

*This course may be taken four times for credit.*

**IEL-084—(3)**

**Intermediate Intensive Writing**

*Prerequisite: IELP assessment and/or grade of "C" or better in IEL-082*

This course is designed for intermediate-level academic ESL/international students to develop the writing skills to express their ideas concisely and accurately. Emphasizes writing sentences, simple paragraphs and short compositions. (5 contact hours)

*This course may be taken four times for credit.*

**IEL-086—(3)**

**Advanced Intensive Writing**

*Prerequisite: IELP assessment or grade of "C" or better in IEL-084*

This course is designed for the advanced ESL/international student who needs to develop the writing style required in business and academic classes. This course presents the principles of English rhetoric. The course includes the development of expository, analytical and argumentative essays, as well as the introduction to the basics of business English and researching skills. (5 contact hours)

*This course may be taken four times for credit.*

**IEL-092—(4)**

**Beginning Intensive Reading**

*Prerequisite: IELP assessment*

This course is designed for the beginning ESL/international student to develop reading skills and strategies to become a more efficient critical reader. Emphasizes phonological awareness, word recognition, vocabulary building, and comprehension strategies. (6 contact hours)

*This course may be taken four times for credit.*

**IEL-094—(4)**

**Intermediate Intensive Reading**

*Prerequisite: IELP assessment or grade of "C" or better in IEL-092*

This course is designed for the intermediate ESL/international student to develop reading skills and strategies to become a more efficient critical reader. Emphasizes vocabulary building, comprehension strategies, academic reading techniques, summarizing, and paraphrasing. (6 contact hours)

*This course may be taken four times for credit.*

**IEL-096—(4)**

**Advanced Intensive Reading**

*Prerequisite: IELP assessment score or grade of "C" or better in IEL-094*

This course is designed for the advanced ESL/international student to develop reading skills and strategies to become a more efficient critical reader. Emphasizes vocabulary building, comprehension improvement, and inferential and evaluative reading. Students will apply new reading techniques to a variety of reading materials. (6 contact hours)

*This course may be taken four times for credit.*

**IMM—Mechanical and Fluid Power Maintenance**

**IMM-101—(3)**

**Mechanical Systems I**

Study fundamental components of mechanical systems such as pulleys, gears, chains, belts, couplings, and packing glands. Use of catalogs, trade references and writing of a maintenance report are included. (4 contact hours)

**IMM-103—(2)**

**Machinery Moving and Set-Up**

Learn the safe and correct movement of equipment. Preparing and rigging equipment, site preparation, mounting, leveling, and alignment of equipment are included. Fee is required. (4 contact hours)

**IMM-107—(3)**

**Mechanical Systems II**

*Prerequisite: IMM-101*

Learn to adjust and maintain mechanical systems such as pumps, transmissions, gear reducers, and assorted mechanical linkage systems. Study proper installation of bearings and bushings for these systems. Nondestructive evaluation is surveyed. (5 contact hours)

**IMM-110—(3)**

**Hydraulics**

Covers hydraulic principles, circuits, oils, controls, valves, troubleshooting, repairing and rebuilding, and hydraulic pumps, motors and servo-systems. (5 contact hours)

**IMM-115—(3)**

**Pneumatics**

*Prerequisite: IMM-110*

This course parallels the development followed in hydraulics: principles, circuits, meters, gauges, actuators, controls, troubleshooting, repairing, and rebuilding. (4 contact hours)

**IMS—Information Management Systems**

**IMS-100—(1)**

**Personal Computer Basics**

Assists students with no previous computer experience in defining computer terminology and acquiring basic navigation skills in the Windows environment. Students will develop an understanding of how computers can be used for personal and business use. Students with little or no previous computer experience are strongly encouraged to enroll in this course prior to or concurrent with enrollment in IMS-101 or IMS-115. Fee is required. (1 contact hour)

**IMS-101—(3)**

**Introduction to Computer Systems**

*Prerequisite: Basic keyboarding skills strongly recommended*

This course prepares students for an Internet and Computing Core Certification exam (IC3) by providing an overview of computer hardware, software, networks, and the Internet. Topics include usage, terminology, hardware, software, utilities and operating system software, file management, programming, networks, researching on the Internet, and data security and privacy issues. Students are introduced to the elements of computer applications- word processing, spreadsheets, database management, and presentation graphics. Students with little or no computer experience are strongly encouraged to enroll in IMS-100, Personal Computer Basics, prior to or concurrent with IMS-101. Fee is required. (4 contact hours)

**IMS-115—(3)**

**Introduction to PC Applications**

*Prerequisite: Basic keyboarding skills strongly recommended*

Develop integrated PC application skills required for the completion of personal and business projects. Emphasizes the creation and editing of text and graphics using a popular office application suite. Topics include word processing, spreadsheet, database management, presentation graphics software, and the World Wide Web. Students with little or no computer experience are strongly encouraged to enroll in IMS-100 prior to or concurrent with IMS-115. Fee is required. (4 contact hours) IAIM: BUS 902

**IMS-215—(3)**

**Advanced PC Applications**

*Prerequisite: IMS-115*

Covers advanced knowledge in four application tools: word processing, spreadsheets, databases, and business applications. Fee is required. (4 contact hours)

**IST—Integrated Systems Technology**

**IST-101—(3)**

**Introduction to Machine Tools**

This course provides a general introduction to machining as a foundation technology in manufacturing. Students will be introduced to the theory and operation of drilling, milling, and turning machines; speeds and feeds; and precision measurement. Fee is required. (5 contact hours) IAIM: MTM 921

**IST-109—(3)**

**Prints for Industry**

Introduces the interpretation of orthographic drawings for manufacturing. Students will read and interpret Process and Instrumentation Diagram (P&ID) prints. Fee is required. (4 contact hours)

**IST-111—(3)**

**Threading, Milling, and Grinding**

*Prerequisite: IST-101 or consent of instructor*

Studies single point threading on an engine lathe and horizontal milling. Introduces grinding and surface grinders. Fee is required. (5 contact hours) IAIM: MTM 922

**JPN—Japanese**

**JPN-101—(4)**

**Japanese I**

Designed for beginning students, topics include pronunciation, useful Japanese expressions, speech patterns, reading, and writing. (4 contact hours)

**JPN-102—(4)**

**Japanese II**

*Prerequisite: JPN-101*

This course continues Japanese I, with emphasis on listening and speaking skills, and reading and writing of Kana. (4 contact hours)

**JPN-201—(4)**

**Japanese III**

*Prerequisite: JPN 102 or consent of instructor*

This course is designed for intermediate students in modern spoken Japanese. The course is a continuation of Japanese II, with emphasis on listening, speaking, reading, and writing of Kana and Kanji. (4 contact hours)

**JPN-202—(4)**

**Japanese IV**

This course is designed for intermediate students in modern spoken Japanese. The course is a continuation of Japanese III, with emphasis on listening, speaking, reading, and writing of Kana and Kanji. (4 contact hours) IA: H1 900

**JRN—Journalism**

**JRN-101—(3)**

**Introduction to Mass Communications**

*Corequisite: Registration or credit in COM-101*

A course designed to examine the fundamentals of the media industry from a historic and economic perspective. Studies media function, rights, restrictions, responsibilities, and consequences as they apply to the consumer. Occupational opportunities will also be discussed. (3 contact hours) IAIM: MC 911

**JRN-111—(3)**

**Newswriting I**

*Prerequisite: JRN-101*

Development of basic journalistic skills in reporting and writing news stories. Includes form and organization of news stories; leads; interviews; and human interest, investigative and interpretative stories. Emphasis is on news value, accuracy and copy preparation. (3 contact hours) IAIM: MC 919

**JRN-112—(3)**

**Newswriting II**

*Prerequisite: JRN-111*

Advanced development of journalistic skills in researching, organizing, and writing news and feature stories. Includes writing techniques for print and telecommunications media. Emphasizes legal rights and ethical responsibilities of news reporting. (3 contact hours)

**LAN—Local Area Networks**

**LAN-101—(1)**

**Orientation to IT Professions**

This course enables students to analyze the field of information technology. The class will include a survey of the IT professions, employment skills, definitions, associations, current issues, salaries, and self-assessment survey of skills and competencies. This course will meet three times during the semester. Students also will be required to create a student plan for the IT program at Moraine Valley. Course requirements include attending a local meeting of a professional association related to the field. (1 contact hour)

**LAN-102—(3)**

**Voice and Data Cabling**

*Prerequisite: LAN-101*

The Fundamentals of Voice and Data Cabling course is designed for students interested in the physical aspects of voice and data network cabling and installation. The course focuses on cabling issues related to data and voice connections and provides an understanding of the industry and its worldwide standards, types of media and cabling, physical and logical networks, as well as signal transmission. Students will develop skills in reading network design documentation, part list set up and purchase, pulling and mounting cable, cable management, choosing wiring closets and patch panel installation and termination as well as installing jacks and cable testing. This hands-on, lab-oriented course stresses documentation, design, and installation issues, as well as laboratory safety, on-the-job safety, and working effectively in group environments. This course will help prepare students for the BICSI Registered Certified Installer, level one. Fee is required. (4 contact hours)

**LAN-103—(1)**

**Security Awareness**

This course is intended to provide a basic survey of the importance of IT security awareness and data confidentiality. This security awareness-training course walks users through every aspect of Information Security in a very broad, easy to understand way and explains to them the value of securing data, both for themselves and the organization. The class will introduce legislation, local, state and federal privacy policies and liability of individuals and institutions related to data confidentiality and integrity. The cost will introduce risk management, security policies, and common threats and countermeasures. The course will also present best practices in access control and password policies. Fee is required. (1 contact hour)

**LAN-111—(3)**

**IT Hardware Essentials**

This course offers a hands-on approach to microcomputer maintenance. This course will introduce a history of personal computer evolution. Examine the bus architecture, CPU parameters and replacement considerations, memory, video systems, storage devices and input/output devices. The course will introduce the most popular and recent technologies. This course is designed to prepare the successful student for the Comptia A+ hardware certification. Fee is required. (4 contact hours)

**LAN-112—(3)**

**IT Operating Systems Essentials**

This course offers a hands-on approach to microcomputer software. This course will introduce a history of personal computer software evolution. This course will also examine and compare operating systems, how an OS works, examining the boot process, installing 98/2K/NT/XP and supporting XP systems in a networked and Internet environment. An introduction to the Linux operating system will also be offered. This course is designed to prepare the successful student for the COMPTIA A+ OS certification. Fee is required. (4 contact hours)

**LAN-121—(3)**

**Managing LAN Hardware**

This course is an introduction to the operation of computer networks and data communications. Student will examine the history and evolution of data communications and computer networks. Hardware and software network configurations, operations and requirements will be discussed. Topics include communication codes, transmission media, the OSI model, network standards and protocol. Fee is required. (4 contact hours)

**LAN-122—(3)**

**Managing Network OS**

This course provides hands-on exercises. Each student will be required to install and configure the major network operating systems. Emphasis will be on configuration, upgrade procedures, proactive maintenance, security, troubleshooting and disaster recovery. Fee is required. (4 contact hours)

**LAN-146—(3)**

**Internetwork Connectivity**

The course introduces the various communication equipment used in building an effective Internet infrastructure. The course provides product-specific installation and configuration. Equipment used in this class includes bridges, routers, gateways, integrated services digital network (ISDN) modems, digital and channel service units (DSU/CSUs), and ISDN pipelines devices. Fee is required. (4 contact hours)

**LAN-150—(3)**

**Managing Windows Desktop**

*Prerequisite: LAN-146*

This class will introduce the Windows desktop technology. The class will include installation and configuration of Windows desktop products. Topics include user management, hardware and software configuration and security. Students will also configure network printing and dial-up services. This class is designed to prepare the student for the Microsoft Certified Professional examination. Fee is required. (4 contact hours)

**LAN-153—(3)**

**IT and Data Assurance I**

*Prerequisite: LAN-122 or consent of instructor*

This course introduces the basics of network security. The student will be introduced to computer network vulnerabilities and threats. This course will expose the student to network security planning, network security technology, network security organization and the legal and ethical issues associated with network security. Fee is required. (4.0 contact hours)

**LAN-163—(3)**

**IT and Data Assurance II**

*Prerequisite: LAN-153 or consent of instructor*

This course introduces the network security specialist to the various methodologies for attacking a network. The student will be introduced to the concepts, principles and techniques, supplemented by hands-on exercises, for attacking and disabling a network. These methodologies are presented within the context of properly securing the network. The course will emphasize network attack methodologies with the emphasis on student use of network attack techniques and tools. Fee is required. (4 contact hours)

**LAN-201—(3)**

**Managing Netware Environment**

*Prerequisite: LAN-122*

Study the management and maintenance of a local area network. Topics include installation procedures, user account administrations, customizing user environments, preventive maintenance procedures, designing and administering printing services, planning and implementing network security, and managing network performance. Fee is required. (4 contact hours)

**LAN-220—(3)**

**Managing UNIX Environments**

This course is an introduction to the UNIX operating system for end users and is complementary to the other Cisco networking courses, such as routing and switching. This course will provide a strong foundation for those who wish to move on to more advanced courses in UNIX system administration. You will become familiar with powerful UNIX command line utilities as well as the graphical Common Desktop Environment (CDE). By successfully completing this course, you will be well on your way to becoming a power user and will feel comfortable with most varieties of UNIX including Sun's own Solaris. Fee is required. (4 contact hours)

**LAN-223—(3)**

**Managing Messaging Services**

*Prerequisite: LAN-122 or consent of instructor*

This course is an introduction to messaging and collaboration services for system administrators. This course will provide a strong foundation for those who wish to implement and administer corporate messaging systems. You will become familiar with Exchange as well as other popular POP and SMTP services such as Sendmail. Additional topics will include directory service configuration, deploying email clients, and instant messaging. A basic introduction of certificates, virtual services and key management will be covered along with concepts of backup and recovery systems for business continuity. Fee is required. (4 contact hours)

**LAN-224—(3)**

**Managing Web Servers**

*Prerequisite: LAN-122*

This course provides hands-on exercises. Each student will be required to install Internet Web services, including Hypertext Transfer Protocol (HTTP), File Transfer Protocol (FTP), Simple Mail Transfer Protocol (SMTP), TELNET, Dynamic Host Configuration Protocol (DHCP), Bootstrap Protocol (BOOTP), Domain Naming System (DNS), Network File System (NFS), and Simple Network Management Protocol (SNMP). The operating system platforms used in this class include UNIX, Netware, and Windows NT. Fee is required. (4 contact hours)

**LAN-230—(3)**

**Managing Windows Servers**

*Prerequisite: LAN-122*

This class introduces the Windows Server. The class will include installation and configuration of Windows Server. Topics include user management, hardware and software configuration, and security. Students also will configure network services, including DNS, DHCP, ADS, printing and network routing. This class is designed to prepare the student for the Microsoft Certified Professional examination. Fee is required. (4 contact hours)

**LAN-233—(3)**

**Managing Database Services**

*Prerequisite: LAN-122 or consent of instructor*

This course is an introduction for installing, configuring, and troubleshooting SQL Server database systems. This course will provide a strong foundation for those who wish to implement and administer corporate database systems. You will become familiar with SQL Server as well as be introduced to other popular database services such as Oracle. Additional topics will include installing or upgrading to SQL Server, configuring database options, managing security, monitoring and fine-tuning system performance, and performing backups and restorations. A basic introduction of the SQL language, directory services, and server management will be covered along with concepts of backup and recovery systems for business continuity. Fee is required. (4 contact hours)

**LAN-241—(3)**

**LAN/WAN Security**

*Prerequisite: LAN-121*

Provides an introduction to LAN and WAN security. Topics in this course include identifying the types of information technology threats, physical security, access security, file system security, fire design, and legal issues related to security. This course is designed to assist individuals for preparing for the CISSP certification process. (4 contact hours)

**LAN-246—(3)**

**Introduction to Routers**

*Prerequisite: LAN-146*

This course is designed to provide a hands-on introduction to Cisco multi-protocol routers. The class will include basic router operations, architecture, configuration and troubleshooting. Students will set up, wire, and configure multi-routers in an internetwork environment. Topics include Cisco IOS, using Telnet, using router operating modes and configuring RIP, IGRP, IPX, Appletalk, X.25, and frame-relay on a Cisco multi-protocol router. Fee is required. (4 contact hours)

**LAN-250—(3)**

**Windows Directory Services**

*Prerequisite: LAN-230*

This class will introduce the Windows 2000 Directory Services. The class will introduce Active Directory Services, including installation, configuration and design. Topics include directory structure, replication and distribution. This class is designed to prepare the student for the Microsoft Certified Professional examination. (4 contact hours)

**LAN-251—(3)**

**Managing Network Infrastructure**

*Prerequisite: LAN-122 or consent of instructor*

The students will learn the interoperability of information systems, both software and hardware. Systems interfacing is addressed, including TCP/IP, and Windows 2000. Other topics include LANs and WANs, bridges, routers, gateways and the OSI model. Fee is required. (4 contact hours)

**LAN-253—(3)**

**Managing Network Security I**

*Prerequisite: LAN-246 or consent of instructor*

This course introduces the network security specialist to the various methodologies for defending a network. The student will be introduced to the concepts, principles, types and topologies of Firewalls to include packet filtering, proxy firewalls, application gateways, circuit gateways and stateful inspection. Fee is required. (4 contact hours)

**LAN-256—(3)**

**LAN Design**

*Prerequisite: LAN-246*

This course is designed to provide a hands-on experience in implementing and configuring complex Cisco multi-switched networks. The class will include an introduction to switched Ethernet networks, virtual LAN technology, spanning-tree protocols and configuration of Cisco switching devices. The class will also include advanced router concepts including access list management, IPX and IP filtering, traffic management, and IGRP implementation. Students will demonstrate the use of the Cisco IOS to configure network switching and routing devices. Fee is required. (4 contact hours)

**LAN-260—(3)**

**Internship**

*Prerequisite: 24 credits in LAN or MIS classes*

This course is a supervised occupational field experience in a student's area of study. Duties should be of a technical nature but provide broad work experience in the field of study. The internship assignment is planned by the student and internship program coordinator. Fee is required. (15 contact hours)

**LAN-263—(3)**

**Managing Network Security II**

*Prerequisite: LAN-253 or consent of instructor*

Expose the student to the various defense methodologies associated with Virtual Private Networks (VPN), Host Intrusion Detection Systems (HIDS) and Network Intrusion Detection Systems (NIDS). Introduce the student to the best practices associated with properly securing business critical network systems using VPNs. Fee is required. (4 contact hours)

**LAN-266—(3)**

**WAN Design**

*Prerequisite: LAN-256 or consent of instructor*

This course is a project in WAN design. The class will include an overview of WAN technologies and WAN configurations on a Cisco router. The second part of the class involves the design, implementation, configuration and demonstration of a fully functional enterprise intranet including HTTP, FTP, NNTP and E-mail services. Fee is required. (4 contact hours)

**LAN-269—(3)**

**Building Scalable Networks**

*Prerequisite: LAN-266*

This class will introduce advanced routing protocols required on scalable networks. Topics include OSPF, EIGRP, and BGP operations and configuration. Course addresses those tasks that network managers and administrators need to perform when managing access and controlling overhead traffic in growing routed networks once basic connectivity has been established. BSCN discusses router capabilities used to control traffic over LANs and WANs, as well as connecting corporate networks to an Internet Service Provider (ISP). The class is designed to prepare students to pursue the Cisco CCNP examination. (4 contact hours)

**LAN-270—(3)**

**Building Remote Access Networks**

*Prerequisite: LAN-266*

This course teaches students how to build a remote access network to interconnect central sites to branch offices and home office/telecommuters. Once the network is built, the course further teaches students how to control access to the central site, as well as maximizes bandwidth utilization over the remote links. The class is designed to prepare students to pursue the Cisco CCNP examination. (4 contact hours)

**LAN-271—(3)**

**Building Switched Networks**

*Prerequisite: LAN-266*

This course teaches network administrators how to build campus networks using multilayer-switching technologies over high-speed Ethernet. The class will include an overview of SPT, bridging, switching, and VLAN management. Students also will design, configure and troubleshoot multilayered switched and routed networks. The class is designed to prepare students to pursue the Cisco CCNP examination. (4 contact hours)

**LAN-272—(3)**

**LAN/WAN Troubleshooting**

*Prerequisite: LAN-269 and LAN-270 and LAN-271*

This courses teaches students how to baseline and troubleshoot a LAN and WAN environment. Students learn to test and identify problems with routers and switches in multiprotocol environments. Topics include Ethernet, Fast Ethernet, and Token Ring LANs; and serial, frame, relay, and ISDN BRI WANs. The class is designed to prepare students to pursue the Cisco CCNP examination. (4 contact hours)

**LAN-273—(3)**

**Network Security Design**

*Prerequisite: LAN-263 or consent of instructor*

This course affords the network security specialist the opportunity to conduct a vulnerability analysis upon a network in order to practice or refine the attack methodologies with the hacker tools and techniques to which the student was exposed during the various program courses. The student must demonstrate the ability to design, plan and execute a vulnerability analysis against an organization network. The student must prepare a written report of the security design, attack methodology, tools and techniques. (4 contact hours)

**LIT—Literature**

**LIT-205—(3)**

**Literature for Children/Young Adults**

*Prerequisite: COM-101*

Survey of the genre of literature for children through young adults, analyzing the social, cultural, and intellectual implications, instruction methodology, including critical thinking assessment, criteria for selection and utilization of literary works-based language development, learning opportunities, and curricular resources in schools and the community. (NOTE: Only 3 credit hours can be earned for either EDU-205 or LIT-205. Duplicate credit in both courses will not be awarded). (3 contact hours)

**LIT-213—(3)**

**American Literature I**

*Prerequisite: COM-101*

American writing from 1600 to the Civil War is explored. Covers the development of analytical, interpretive and critical skills through a study of the literature, its authors and their environments. (3 contact hours) IAI: H3 914; IAIM: EGL 911

**LIT-214—(3)**

**American Literature II**

*Prerequisite: COM-101*

Covers American writing from the Civil War to the present. Approach to literature is the same as LIT-213. (3 contact hours) IAI: H3 915; IAIM: EGL 912

**LIT-215—(3)**

**Bible as Literature I**

*Prerequisite: COM-101*

This course is an analysis of selected books of the Old Testament, with emphasis on literary concepts: allegory and parable, history, epic, fiction, poetry, prophecy, tragedy, myth, and legend. (3 contact hours) IAI: H5 901

**LIT-216—(3)**

**Bible as Literature II**

*Prerequisite: COM-101*

Analyze selected books of the New Testament, with emphasis on literary concepts such as narration, gospel, allegory, history, epistle, apocalypse, myth, and legend. (3 contact hours) IAI: H5 901

**LIT-217—(3)**

**Introduction to Poetry**

*Prerequisite: COM-101*

An examination of the role of imagery, diction, form, figurative language, and other poetic devices for creating and manipulating sound and sense. Also explore poetry as a literary genre. (3 contact hours) IAI: H3 903; IAIM: EGL 915

**LIT-218—(3)**

**Introduction to Drama**

*Prerequisite: COM-101*

This course is a survey and analysis of representative plays from various periods. Includes study of dramatic techniques, and types and elements in selected readings from classical Greek to present-day drama. (3 contact hours) IAI: H3 902

**LIT-219—(3)**

**Women in Literature**

*Prerequisite: COM-101*

Characterization and archetypes of women as presented in literary works are covered. Includes works by authors of both sexes. Emphasis is on female writers frequently ignored in anthologies of literature. (3 contact hours) IAI: H3 911D

**LIT-220—(3)**

**Introduction to Fiction**

*Prerequisite: COM-101*

Plot structure, narrative technique, character depiction and theme, and fiction as a literary genre are examined. (3 contact hours) IAI: H3 901; IAIM: EGL 917

**LSC—Travel Business Management**

**LIT-221—(3)**

**English Literature I**

*Prerequisite: COM-101*

Covers the Middle Ages to the Romantic period, with an emphasis on literary interpretation and evaluation of major authors. (3 contact hours) IAI: H3 912; IAIM: EGL 913

**LIT-222—(3)**

**English Literature II**

*Prerequisite: COM-101*

Covers the Romantic period to the present, with emphasis on literary interpretation and evaluation of major authors. (3 contact hours) IAI: H3 913; IAIM: EGL 914

**LIT-223—(3)**

**Western Literature I**

*Prerequisite: COM-101*

This course is an analysis of Greek, Roman, Medieval, and Renaissance works as intellectual and religious foundations of modern Western thought. (3 contact hours) IAI: H3 906

**LIT-224—(3)**

**Western Literature II**

*Prerequisite: COM-101*

Selected works of universal significance from 1850 to the present are included. Emphasis is on influential European authors and literary trends. Independent study is encouraged. (3 contact hours) IAI: H3 907

**LIT-225—(3)**

**Shakespeare**

*Prerequisite: COM-101*

Study representative comedies, tragedies and historical plays using interactive technologies or actual play performances to explore contemporary and critical interpretations. (3 contact hours) IAI: H3 905

**LIT-226—(3)**

**Literature of the Non-Western World**

*Prerequisite: COM-101 and COM-102*

This course introduces literature translated into English by writers from non-Western cultures, for example, Asian (East, Southeast and South), African, and Middle Eastern, with an emphasis on the intellectual, social, and political context of their works. It will examine genres and literary trademarks in significant representative texts from these cultures while also exploring the aesthetics, religions, histories, and philosophies that shape these cultures' contribution to the world. (3 contact hours) IAI: H3 908N; IAIM: EGL 919

**LIT-299—(4)**

**Independent Study in Literature**

The student and instructor decide on an area of study in the field of literature. The student contracts with the instructor to complete certain projects for three to four credit hours. (variable contact hours)

*This course may be taken five times for credit.*

**LSC-106—(3)**

**Introduction to Travel Planning**

Designed to prepare students for specialized travel/tourism curriculum courses by introducing them to travel/tourism services, the travel/tourism industry, basic terminology, and available reference sources. Career opportunities are examined. (3 contact hours)

**LSC-108—(3)**

**International Travel**

Provides instruction in international travel, international documentation requirements, worldwide travel codes and terminology, international hotels and tour manuals. Includes an introduction to international travel geography. (3 contact hours)

**LSC-109—(2)**

**Tour/Itinerary Planning**

*Prerequisite: LSC-106*

Provides instruction in domestic tour and itinerary planning, tour documents and manuals, hotel directories, and specialty services. Includes tour escorting, group meeting and convention planning, and major modes of transportation. (2 contact hours)

**LSC-110—(3)**

**Fundamentals of Meeting Planning**

Provides an overview of meeting planning including: housing, transportation, catering, function arrangements, audiovisuals, budgeting, negotiations, and legal issues. (3 contact hours)

**LSC-122—(3)**

**Special Events Management**

The purpose of this course is to acquire an in-depth knowledge about the specialized field of event management, and to become familiar with management techniques and strategies required for successful planning, promotion, and implementation and evaluation of special events. (3 contact hours)

**LSC-130—(3)**

**Airline Ticketing I**

Provides basic instruction in domestic airlines reservation and ticketing procedures. Includes use of the North American edition of the Official Airline Guide, fares, fare rules, and tariffs. (3 contact hours)

**LSC-131—(2)**

**Airline Ticketing II**

*Prerequisite: LSC-130 or consent of instructor*

Provides instruction in advanced domestic ticketing procedures. Includes the use of tour orders, MCOs and PTAs, as well as ticket revalidation, re-issues, exchanges, and airline promotion coupons. Basic international airline reservations, the worldwide edition of the OAG, and ticketing procedures, including fares and taxes, will also be emphasized. (2 contact hours)

**LSC-133—(2)**

**Client Communications**

This course is designed to emphasize the importance of verbal, nonverbal and written modes of communication in industry. Emphasis will be placed on written business correspondence, professional selling skills, problem solving, and developing a positive customer service attitude. (2 contact hours)

**LSC-140—(3)**

**Airline Computing—Sabre**

Provides intensive instruction in the airline computer reservation system. Through a simulation system, students learn to create airline schedule availability and flight status displays; the functions necessary to sell the flight space, and how to build a basic passenger name record; assign seats; use client profiles; work queues; modify data and itineraries; and related techniques. (4 contact hours)

**LSC-141—(3)**

**Airline Computing—Apollo**

Provides intensive instruction in the airline computer reservation system. Through a simulation system, students learn to create airline schedule availability and flight status displays; the functions necessary to sell the flight space and how to build a basic passenger name record; assign seats; use client profiles; work queues; modify data and itineraries; and related techniques. (4 contact hours)

**LSC-210—(2)**

**Travel Agency Management**

*Prerequisite: LSC-106 or consent of instructor*

Provides intensive instruction in the management of travel agencies with focus on agency operations, office management, legal aspects, automation, and personnel administration. Covers the complex and varied relationships among travel suppliers, tour operators, tour wholesalers, and others involved in the travel distribution system. (2 contact hours)

**LSC-214—(3)**

**Destination Planning—North America**

Instruction in domestic travel will include the United States, Canada, Mexico, Bermuda, and the Caribbean islands. Points of interest; location of major cities, ports, airports, tourist attractions, air, land and sea companies and travel resources will be emphasized. It encourages students to develop research skills, using print, electronic, and human resources to help meet client wants and needs. (3 contact hours)

**LSC-225—(2)**

**Cruising: A-Z**

Provides an overview of the cruise industry, including cruise companies, cruise geography, ships, passenger profiles, brochures, promotion, and selling. (2 contact hours)

**LSC-234—(3)**

**Internship—Travel**

*Prerequisite: Consent of instructor/coordinator; registration in LSC-238*

Planned and supervised career field experience relating to the student's degree program. Student will intern in travel-tourism sites or related agencies. (15 contact hours)

**LSC-238—(1)**

**Seminar—Travel**

*Prerequisite: Consent of instructor/coordinator; registration in LSC-234*

Sharing, evaluating and integrating internship experiences are involved in this seminar. (1 contact hour)

**MAS—Massage Therapy**

**MAS-101—(1)**

**Introduction to Massage**

Students are given an introduction to therapeutic massage. Students are exposed to terminology, anatomy and physiology, safety and equipment, scope of practice, and strokes. Students have hands-on experience with massage therapy and will practice on each other. (1.5 contact hours)

**MAS-110—(4)**

**Basic Swedish Massage**

*Prerequisite: MAS-101 with a "C" or better, MRT-110, BIO-115, or BIO-180 and BIO-181, and valid CPR and First Aid Certificate. Current CPR and First Aid cards must be presented and copied prior to enrollment.*

Students will learn the benefits of touch and a Swedish massage from head to toe. Discussions will include pathologies and any benefits, precautions and/or contraindications as well as the proper massage techniques. Students will begin the process of client information collection. (5 contact hours)

**MAS-112—(4)**

**Sports Massage**

*Prerequisite: MAS-110 and PEH-160*

Students will learn the basis of exercise physiology, joint mobilization, pre-and post-event, maintenance massage, stretches and care of frequent sports injuries. Thermotherapy and heat-related injuries for the professional and amateur athlete will be discussed. (5 contact hours)

**MAS-114—(4)**

**Massage Modalities**

*Prerequisite: MAS-110*

Students will be introduced to several specialties in massage such as chair massage, pregnancy/infant massage, stone massage, Oriental approach to massage, and energy work. Introduction to such modalities as cranio-sacral, orthobionomy and reflexology will also occur. (5 contact hours)

**MAS-118—(4)**

**Business, Ethics, and Documentation**

*Prerequisite: MAS-101*

Students explore aspects of developing and maintaining a successful therapeutic massage practice. Ethical issues related to massage are discussed, and a code of ethics is developed. Standards of practice are discussed. Documentation skills are discussed and formulated. (4 contact hours)

**MAS-120—(2)**

**Massage Lab Practicum**

*Prerequisite: MAS-110, MAS-112, MAS-114, MAS-118*

Students are supervised in a clinic-style setting. This course provides an opportunity for students to apply the principles, techniques and procedures practiced in professional massage therapy. Students demonstrate proper client-therapist communication skills (including chart documentation), draping techniques and sanitary precautions. (6 contact hours)

**MDT—Mechanical Design and Drafting/CAD**

**MDT-100—(2)**

**Introduction to Computer Graphics**

Surveys computer graphics hardware and software fundamentals. Develops basic concepts and skills of computer representation of graphical information. An introduction to the basic usage of CAD, animation, desktop publishing, business graphics, and Web pages. Emphasize graphical areas relating specific areas of study and complete a term project. Fee is required (4 contact hours)

**MDT-101—(3)**

**Introduction to Drafting**

Includes theory, technical skills, industrial applications, practices of technical sketching and use of CAD, geometric construction, multiview drawings, basic dimensioning, sectional views, and auxiliary views, pictorials, and developments. Fee is required. (5 contact hours)

**MDT-106—(2)**

**Mechanical Assemblies**

*Prerequisite: MDT-101 or consent of instructor; registration or credit in MDT-110 or consent of instructor*

The theory, technical skills, industrial applications, and practices of mechanical assembly and pictorial drawing are presented. Bill of materials, subassemblies, standard parts, fasteners, dimensioning, and CAD techniques are covered. Fee is required. (3 contact hours)

**MDT-110—(3)**

**Mechanical Detailing**

*Prerequisite: MDT-101 or consent of instructor; registration or credit in MDT-106 or consent of instructor*

The design considerations and industrial applications of castings, forgings, stampings, and machined components are emphasized. Fit specifications and geometric dimensioning and tolerancing are introduced. Fee is required. (5 contact hours)

**MDT-115—(2)**

**Applied GDT**

*Prerequisite: MDT-101 or consent of instructor*

An introduction to the latest revision of the ASME Y14.5M standard for geometric dimensioning and tolerancing (G D & T). Students will learn to read and apply geometric tolerancing to mechanical detail drawings. Emphasizes applying geometric dimensioning and tolerancing to drawings of actual mechanical parts. Fee is required. (3 contact hours)

**MDT-145—(3)**

**Introduction to Computer Aided Drafting**

Study theory and practice of current use of computer aided drafting and design. Includes hardware configuration, computer math and software capabilities. Generate two- and three-dimensional orthographic drawings as well as pictorial techniques, including cursor manipulation, digitizing, direct display interaction, editing, storage and retrieval, rotation, zooming, panning, scaling, mirroring, printing, and plotting. Fee is required. (5 contact hours)

**MDT-160—(3)**

**Introduction to 3D Modeling**

*Prerequisite: MDT-145*

Covers the basics of 3-D wire frames, surface modeling, solids modeling, and rendering. Students learn the concepts and techniques required to construct 3-D objects, including 3-D coordinates, spherical coordinates, and surface and solids modeling. User coordinate systems and multiple viewports are also discussed. Students construct a variety of objects using these techniques. Objects are rendered to slides and hard copy. Models produced with rapid prototyping equipment will also be studied. Fee is required. (5 contact hours)

**MDT-190—(2)**

**Construction Blueprint Reading**

Introduces the use of blueprints and construction documents as used in the building industry. The course covers residential, light commercial and multistory construction. Principles of reading working documents such as plans, elevations, sections, and details related to the following: architectural, civil, electrical, HVAC, plumbing, structural plans, and specifications. The course is helpful for apprentices, students of architecture, estimators, contractors, real estate, and employees who work in the construction industry. (3 contact hours)

**MDT-205—(3)**

**Machine Elements**

*Prerequisite: MDT-106, MDT-110, MDT-145 or consent of instructor*

Machine elements and basic mechanisms are covered. Elements to be studied specifically are gears, cams, bearings, belt and chain drives, splines, and linkages. The focus will be on the calculation, selection and application of these elements in mechanical design. Fee is required. (5 contact hours)

**MDT-209—(2)**

**Hydraulics and Pneumatics**

*Prerequisite: MTH-135 or consent of instructor*

The study of the basic theory and applications of hydraulic and pneumatic components and circuits. Special attention is given to the application and design use of hydraulics and pneumatics for power transmission and the control of industrial processes. Fee is required. (3 contact hours)

**MDT-210—(3)**

**Statics and Strength of Materials**

*Prerequisite: MDT-205, MTH-142, PHY-150 or consent of instructor; registration or credit in MDT-255*

Analyze force systems in equilibrium and study internal stresses of loaded members. Equilibrium of loaded beams, columns, trusses, strength of riveted and welded joints design of torque transmitting members are studied. Fee is required. (3 contact hours)

**MDT-213—(3)**

**Plant Engineering Drafting**

*Prerequisite: MDT-145 and MTH-135 or consent of instructor*

Study piping layouts, symbols and detailing; electrical drafting of wiring diagrams, welding drafting, structural detailing and materials handling. Cover CAD applications to these techniques in detail. Fee is required. (5 contact hours)

**MDT-220—(3)**

**Tool Drafting**

*Prerequisite: MDT-106, MDT-110 or consent of instructor*

Introduction to die, jig, drawing, theory, technical skills, industrial application and typical practices in tooling drawings are studied. Fee is required. (5 contact hours)

**MDT-233—(3)**

**Internship**

*Prerequisite: 30 hours in the Mechanical Design and Drafting/CAD Program or consent of Program Coordinator*

*Corequisite: Registration in MDT-237*

Gain planned, supervised work experience as a mechanical design/CAD intern. Emphasizes use of human relations, technical and communication skills. (15 contact hours)

**MDT-237—(1)**

**Internship Seminar**

*Prerequisite: 30 hours in the Mechanical Design and Drafting/CAD Program or consent of Program Coordinator*

*Corequisite: Registration in MDT-233*

Discussion of various experiences and issues encountered during supervised mechanical drafting design/CAD internship. (1 contact hour)

**MDT-245—(3)**

**Applied CAD**

*Prerequisite: MDT-145 or consent of instructor*

Study the application of CAD hardware and software in mechanical design. Each student will generate two-dimensional and three-dimensional orthographic drawings, including assembly drawings. Merging parts into assemblies and separating them into exploded views are topics of study, as well as group technology, i.e. "family of parts," system editor, menu and icon construction, macro writing, and operating systems. Both theoretical and practical applications are stressed. Fee is required. (5 contact hours)

**MDT-255—(3)**

**Machine Design**

*Prerequisite: MDT-205 or consent of instructor*

*Corequisite: MDT-210 or consent of instructor*

Design of machines, assembly drawings, using gears, machine elements, welded fabrications, statics, material selection, layouts, calculations, and cost estimation are topics included. CAD applications to machine design are studied in detail. Fee is required. (5 contact hours)

**MDT-260—(3)**

**CAD Management**

*Prerequisite: MDT-145 or consent of instructor*

Study the application of operating systems, system management, user management, networking and integration as it relates to the CAD field. Each student will explore the features, commands, components, drives, files, and procedures, as well as the use of system and network management procedures and software in the Novell, Ethernet, and Windows NT 95/98, Windows 2000 environments. Fee is required. (5 contact hours)

**MDT-265—(3)**

**CAD Programming Techniques**

*Prerequisite: MDT-145 or consent of instructor*

CAD programming techniques to cover Lisp, C and/or Visual BASIC, macro writing, menu and icon construction, libraries, database and third-party software. The student, in consultation with staff, will select and solve a design problem using the CAD programming techniques in mechanical design, plant engineering, structural, tool design, systems process design, material handling, or other mutually agreed upon project. Fee is required. (5 contact hours)

**MDT-275—(3)**

**Introduction to Animation**

*Prerequisite: MDT-100 or consent of instructor*

Covers the basics of 2-D and 3-D animation and rendering. Students learn the concepts and techniques required to construct 2-D and 3-D objects. These include simple modeling, 3-D shaping, lofting, animating, keyframing, 3-D editing, materials mapping, and simple morphing. Students design projects using these techniques with the use of tools and inks, color palettes, 2-D and 3-D CAD geometry, maps and rendering processes. Fee is required. (5 contact hours)

**MDT-276—(3)**

**Applied Animation Techniques**

*Prerequisite: MDT-275 or consent of instructor*

This course covers the applied techniques of 2D and 3D animation and rendering. Students learn the applied concepts and techniques of modeling with modification techniques that use the materials editor, special effects lighting, geometric modifiers, keyframing and tracking to derive practical animation solutions to complex animated effects. Fee is required. (5 contact hours)

**MDT-277—(3)**

**Computer Character Animation**

*Prerequisite: MDT-275 or consent of instructor*

This course covers applied character animation. Students learn the concepts and techniques required to construct biped and physique techniques. These include skeletal animation for 2 legged characters. Physique modifiers applied to models to achieve realistic skinning deformations to animated characters are also studied. Fee is required. (5 contact hours)

**MDT-278—(3)**

**Design Visualization**

Students will be introduced to the creation and display of 3D computer scenes of architectural and industrial objects. Students will learn how to import and adjust previously created 3D geometry from a variety of CAD software. Material properties, surfaces, and lights will be added to develop photo-realistic scenes. Camera animations including "walk-thru's" or "fly-by's" will be discussed and developed. Course topics include 3D geometry, rendering, lighting (basic and advanced), photometric lights, radiosity, material creation, editing and mapping, ray-tracing, and camera effects. Build and animate simple hierarchies and produce basic time, length, key frame animation will also be studied. A student final project will be completed at the end of the course. Fee is required. (4 contact hours)

**MDT-279—(3)**

**Storyboarding**

Covers basic to advanced storyboarding. Students will learn how to traditionally draw out storyboard projects using discussed techniques and styles; build a storyboard with drama, mood and excitement; develop their own style; and incorporate storyboarding into computer animation. Cinematic techniques, terminology, camera angles for the most drama, scene and shot development, character development, character expressions, dramatic character positioning and movement, coloring, and scene environment also are covered, as well as a basic understanding of the entire film production process. (5 contact hours)

**MDT-280—(3)**

**Video Integration**

Provides the student with a basic understanding of image compositing in 3-D space. The fundamental concepts of creating composites, paint projects, developing animations, and applying visual effects are introduced. Students will learn how to combine layers, 3DS Max animations, and effects into composites. Software used will be Discreet Combustion. (5 contact hours)

**MDT-281—(3)**

**Introduction to Flash**

*Corequisite: Registration or credit in MDT-100 and MDT-275*

Covers the basics of creating animated, vector-based Web content using Macromedia Flash. Students will learn how to create interactive vector graphics and animations. (5 contact hours)

**MDT-282—(3)**

**Advanced Flash for 3D Animation**

*Prerequisite: MDT-275 and MDT-281*

Covers advanced concepts of integrating 3D models and animations into Macromedia Flash. Students will learn how to optimize and import 3DS Max files into Flash. (5 contact hours)

**MDT-283—(3)**

**Character Modeling**

*Prerequisite: MDT-275*

*Corequisite: Registration or credit in MDT-277 or consent of instructor*

Provides a basic understanding required for designing, building and mapping 3D computer characters. The fundamental concepts of character design are explored for producing high-resolution and low-polygon count models. Students will learn a variety of modeling techniques necessary to build and properly map models. (5 contact hours)

**MDT-284—(3)**

**Dynamic Simulations**

*Prerequisite: MDT-275*

Covers the simulation and physical behaviors of complex models in a 3D environment. Students learn the applied concepts and techniques required for creating realistic physics-based animations. (5 contact hours)

**MDT-285—(3)**

**Introduction to Parametric Modeling**

*Prerequisite: MDT-160 or consent of instructor*

Focuses on 3D parametric modeling in an engineering design environment. Topics include 2D sketch profiles, constraints, parametric control, part design, feature-based modeling, Boolean operations, and orthographic view extraction. Bi-directional control of 3D models and 2D orthographic drawings will be studied. The use of rapid prototyping for model design, analysis and verification will be incorporated. (5 contact hours)

**MDT-287—(3)**

**Game Design**

This course will introduce the student to computer game design. All manner and type of computer games will be discussed including the history and future of computer games. Students will learn to analyze, evaluate and review computer games. Game design theory and concepts will be introduced and students will develop ideas for games. Marketing and presentation issues will also be investigated. Fee is required. (4 contact hours)

**MDT-288—(3)**

**Applied 3D Parametric Modeling**

*Prerequisite: MDT-285 or consent of instructor*

Introduces the use of local and global parameters in the area of 3D parametric modeling. Students will learn to control parts with design variables, 3D constraints, variable dimensions, table-driven parts, mathematical operators, and adaptive techniques. Rapid prototyping of models will be incorporated. (5 contact hours)

**MDT-289—(2)**

**3D Parametric Assemblies**

*Prerequisite: MDT-285 or consent of instructor*

Introduces the concepts and design techniques of 3D parametric mechanical assemblies. Topics include assembly constraints, global parameter usage in assembly modeling, interference checking, animation/kinematic analysis, and parametric control of assembly components. Orthographic (2D) drawings will be created from 3D assembly and part models. Rapid prototyping will be incorporated. (3 contact hours)

**MDT-290—(3)**

**Introduction to Architectural CAD**

*Prerequisite: MDT-145, MDT-190 or consent of instructor*

This course covers the application of production architectural/construction drawings using CAD. Floor plans, sectional views, details, schedules, and elevations used for residential and light commercial construction are studied. Fee is required. (5 contact hours)

**MDT-291—(3)**

**Applied Architectural Facilities**

*Prerequisite: MDT-290 or consent of instructor*

This course covers the applied application of production drawings for light to medium industrial construction using CAD. Fee is required. (5 contact hours)

**MIS—Management Information Systems**

**MIS-105—(3)**

**Programming Principles**

*Corequisite: IMS-101 or IMS-115*

This course serves as a foundational course for students in programming and other computer courses, and is recommended for all students and professionals pursuing careers in information technology. Emphasis is placed on problem solving, logic, and control of the computer through use of a high-level programming language. Key concepts include variables and data types, loops, decisions, functions, and arrays. Students enrolling in MIS-105 should already demonstrate a proficiency in file management. Fee is required. (4 contact hours)

**MIS-108—(1)**

**Internet Basics**

This course is intended to familiarize the student with the Internet. Basic computer literacy is assumed. Students will be presented with an overview of Internet basics and the fundamentals of browsers, the World Wide Web, e-mail, and other Internet utilities. Students in this course will complete projects that integrate the skills learned in all applications. (1.5 contact hours)

**MIS-111—(3)**

**Internet Technologies**

This course is designed for students who are expecting to enter the information technology field, or for non-technical professionals who are pursuing related careers such as the business, sales and marketing of Internet solutions. This course prepares students for an Internet technology certification exam (CompTIA i-Net+). A wide range of material is covered about the Internet, from using the Internet to demonstrating how the Internet works, using various Internet protocols, programming on the Internet, the Internet infrastructure, security, and e-commerce. It not only introduces a variety of concepts, but also presents an in-depth coverage of the most significant aspects of Internet, such as the OSI model of networking. In addition to explaining concepts, the course uses a multitude of real world examples of networking issues from a professional's standpoint. Fee is required. (4 contact hours)

**MIS-120—(3)**

**RPG Programming I**

*Prerequisite: MIS-105*

This course introduces the elements of RPG programming and program documentation using RPG IV. The basics of the RPG language, the production of reports, and the usage of files are emphasized. Fee is required. (4 contact hours)

**MIS-121—(3)**

**Networking for Business**

*Prerequisite: MIS-111*

This course is designed to provide a comprehensive understanding of networking technologies, concepts and terminology specifically used within the business environment. A variety of network equipment will be examined, including hubs, routers, switches, and NICs. LAN architectures also will be discussed. Students also will learn how to install, manage, maintain, and secure various types of Web servers. Topics include TCP/IP, IPv6, OSI communications model, network design, network cabling, and network management and services. Fee is required. (4 contact hours)

**MIS-123—(3)**

**Database Design**

*Prerequisite: IMS-101 or IMS-115, with a grade of "C" or better*

This course is designed to teach the principles of database design. It will focus on the study of relational database design and data modeling, and will provide students with opportunities to gain experience in table normalization, setting up entity relationships, creating entity-relationship diagrams (ERDs) in accordance with industry standards, and constructing databases from ERDs using database management systems software. This class is for students with at least one semester of PC applications experience, including some practical exposure to a database management system. Popular database management system and modeling software will be utilized in class projects and other hands-on assignments and demonstrations. Students should be aware that there are both theoretical and practical components to this course. Fee is required. (4 contact hours)

**MIS-139—(3)**

**VB.NET Programming I**

*Prerequisite: MIS-105 with a grade of "C" or better or consent of instructor*

This course is an introduction to the VB .NET computer programming language and its use in solving problems from business or other disciplines. Topics include problem-solving, algorithm design and implementation, user-interface design, visual-, event-driven, and object-oriented programming, along with testing and debugging methodologies. Programming language elements introduced will include scoped and typed variables, decision and repetition structures, arithmetic and string functions, user-defined procedures, arrays, structured types, and file processing. Fee is required. (4 contact hours)

**MIS-141—(3)**

**Web Page Authoring and Publishing**

*Prerequisite: MIS-111 or consent of instructor*

This course introduces the student to Web authoring and publishing using Extensible Hypertext Markup Language (XHTML) and cascading style sheets (CSS). In this class, the student will learn how to plan, design, create, and test Web pages. The basic XHTML structure and the elements and attributes supported in XHTML will be covered. Topics include formatting text, including images, constructing tables and lists, connecting web pages using hyperlinks, creating forms, incorporating multimedia, and using style sheets to create layouts. The student also will learn how to publish a Web site using a File Transfer Protocol (FTP) client. Fee is required. (4 contact hours)

**MIS-146—(3)**

**Operating Systems**

*Prerequisite: IMS-101 or IMS-115 or ELT-112*

This course introduces students to various operating systems used for personal and business applications. The current Microsoft Windows Operating System is covered comprehensively. Windows OS commands, Mac OS, IBM OS, and Open Source OS (such as Linux) are highlighted. Security issues and a brief overview of TCP/IP are also included. Fee is required. (4 contact hours)

**MIS-154—(3)**

**C# Programming I**

*Prerequisite: MIS-105 with a grade of "C" or better*

This course is designed to teach introductory topics in PC application development by using both a conceptual and hands-on approach. This course will focus on the study of the C# programming language and will provide students with opportunities to gain experience using C# to create both console applications and event-driven GUI applications. This is an applications programming class for students with at least one semester of programming experience. The C# programming language will be examined, as will the Visual Studio.NET development environment. Popular development software will be utilized in class projects and other hands-on assignments and demonstrations. Students should be aware and comfortable understanding there are both theoretical and practical components to this course. Fee is required. (4 contact hours)

**MIS-160—(3)**

**C++ Programming I**

*Prerequisite: MIS-105 or CSC-140 with a grade of "C" or better*

This course introduces C++ programming language to students already familiar with basic programming principles. Fundamentals are illustrated through the coding and execution of programs. Problem-solving and algorithm development are emphasized in program design through procedural, structured and object-oriented programming techniques. Topics include basic variable types, arithmetic and logical expressions, control structures, classes, objects, functions, arrays, strings, simple inheritance, and sequential files. Fee is required. (4 contact hours)

**MIS-176—(3)**

**JAVA Programming I**

*Prerequisite: MIS-105 with a grade of "C" or better*

This course introduces the Java programming language to students already familiar with basic programming principles. Program design using structured, top-down and object-oriented programming approaches within the Java technology environment is emphasized. Topics include basic variable types, arithmetic and logical expressions, control structures, classes, objects, methods, arrays, strings, simple inheritance, and sequential file processing. Fee is required. (4 contact hours)

**MIS-197—(3)**

**E-Commerce Development**

*Prerequisite: IMS-101 or equivalent knowledge*

This course provides an introduction to the development of an e-business by using both a conceptual and hands-on approach. This approach is used to allow for the acquisition of necessary business and technological skills before designing and building Web applications. Popular development software will be utilized in class projects and other hands-on assignments and demonstrations. Fee is required. (4 contact hours)

**MIS-199—(1)****Special Short Topics in Technology**

This course covers different technology topics based on emerging technological advances. The topics to be covered during a particular semester will be identified with narrative by section number in the College schedule of classes. A syllabus documenting the specific topics, description, objectives, and information about prerequisite skills for the course will be available as each section is added to the schedule. This course may be taken up to three times for credit as long as different topics are selected. Fee is required. (1 contact hour)

**MIS-200—(3)****Special Topics in Technology**

This course covers different technology topics based on emerging technological advances. The topics to be covered during a particular semester will be identified with narrative by section number in the College schedule of classes. A syllabus documenting the specific topics, description, objectives, and information about prerequisite skills for the course will be available as each section is added to the schedule. This course may be taken up to three times for credit as long as different topics are selected. Fee is required. (4 contact hours)

**MIS-210—(3)****Project Management**

This course is designed for students who are expecting to enter the information technology field, or for non-technical professionals who are pursuing related careers in business, sales or marketing. Students in this course use case studies to enhance their ability to function as project leaders. While exploring the project life cycle, they gain experience in budgeting and timeline management. Students use software to design project schedules using tools such as bar charts, program evaluation review technique (PERT) and critical path method (CPM), and produce project plans to apply to case studies. Students are expected to have computer application experience (for example the Microsoft Office Suite), good file management skills and some understanding of business concepts. Fee is required. (4 contact hours)

**MIS-220—(3)****RPG Programming II**

*Prerequisite: MIS-120*

This course continues the development of skill in the use of RPG IV. Interactive applications, tables, arrays, and structured coding techniques are used to write, compile, and run programs. Advanced topics such as procedures, subfiles, modular programming, and APIs provide the foundation for moving from older RPG environments to the modern RPG IV language. Fee is required. (4 contact hours)

**MIS-221—(3)****Interactive Programming for RPG**

*Prerequisite: MIS-220*

This course introduces the concepts and principles of structured design as applied to interactive programs. Using top-down development, specific RPG and DDS coding techniques are used to implement structured interactive programs. Basics of subfile processing, a tool for increasing productivity, and modular programming are explored. Collaborative learning is utilized to create a semester-long capstone project as well as smaller programming development projects throughout the semester. Fee is required. (4 contact hours)

**MIS-239—(3)****VB.NET Programming II**

*Prerequisite: A grade of "C" or better in MIS-139, or consent of instructor*

*Corequisite: MIS-123*

This course introduces the student to use of the Visual Basic .NET programming language to solve problems from business and other disciplines. Students will be introduced to software design and development using visual, event-driven, procedural, structured, object-oriented, and n-Tier architecture techniques. Topics will include coverage of multi-form applications, arrays, database processing, object serialization, standard collections, structured exception handling, and creation of reusable components with classes. (4 contact hours)

**MIS-241—(3)****Advanced Web Page Authoring**

*Prerequisite: MIS-105 and MIS-141*

This course introduces JavaScript to students already familiar with XHTML and cascading style sheets for the purpose of building interactive Web sites. Using a hands-on approach, students will analyze problems, develop solutions, and debug and test those solutions. Topics include basic data types, literals, variables, operators, control structures, functions, browser objects, document objects, event handlers, regular expressions, dynamic content, and cookies. Fee is required. (4 contact hours)

**MIS-251—(3)****ColdFusion Programming**

*Prerequisite: MIS-123 and MIS-241*

This course is designed to provide students with a comprehensive understanding of ColdFusion for the purpose of developing dynamic, data-driven Web sites. Using a hands-on approach, students also will develop Web applications using server-side technologies. Topics include ColdFusion variables and logic, form processing and validation, database manipulation, exception handling, cookies, and sessions. Fee is required. (4 contact hours)

**MIS-254—(3)**

**C# Programming II**

*Prerequisite: MIS-154 with a grade of "C" or better*

This course is designed to teach intermediate-level topics in PC application development by using both a conceptual and hands-on approach. This course will focus on the continued study of the C# programming language and will provide students with opportunities to gain experience using C# to create both console applications and event-driven GUI applications using object oriented techniques. This is an applications programming class for students with at least one semester of programming experience in the C# language. Popular development software will be utilized in class projects and other hands-on assignments and demonstrations. Students should be aware and comfortable understanding there are both theoretical and practical components to this course. Fee is required. (4 contact hours)

**MIS-259—(3)**

**Flash ActionScript**

*Prerequisite: MIS-123 and MIS-241*

This course provides students with a comprehensive understanding of ActionScript, Macromedia Flash's object-oriented programming language. Using a hands-on approach, students will develop interactive interfaces, animations, and data-driven applications. Topics include variables and properties, functions, methods, event handling, arrays, objects, core and user-defined classes, components, managing data, and multimedia. Fee is required. (4 contact hours)

**MIS-261—(3)**

**C++ Programming II**

*Prerequisite: Grade of "C" or better in MIS-160 or CSC-240*

This course is an intermediate study of the C++ programming language for students already familiar with fundamental C++ topics. Concepts of object-oriented programming (OOP) design are emphasized. Topics include the specification of classes and creation of objects using data abstraction, levels of inheritance, polymorphism, using variables and arrays with pointers, dynamic memory allocation, binary file I/O, exceptions, templates, basic database concepts, and the standard template library. Fee is required. (4 contact hours)

**MIS-264—(3)**

**C++ Software Development**

*Prerequisite: Grade of "C" or better in MIS-261 and MIS-123*

This course in an advanced study in software development of students already skilled with the C++ programming language. Using the Visual C++.NET environment to design and implement Windows-based applications is emphasized. Topics will include a graphical user interface with controls, event handling, document/view architecture, exceptions, database concepts, Microsoft Foundation Classes (MFC) and managed .NET frameworks, and an introduction to unmanaged and managed code interoperability. Fee is required. (4 contact hours)

**MIS-276—(3)**

**Java Programming II**

*Prerequisite: Grade of "C" or better in MIS-176*

This course is an intermediate study of the Java programming language. Concepts of object-oriented program design are emphasized. Topics included are classes and inheritance, graphical user interface and event handling with applications and applets, basic graphics, exceptions, multithreading, collection classes, serialized I/O, record processing, basic database concepts, and networking. Fee is required. (4 contact hours)

**MIS-283—(3)**

**Java Web Applications**

*Prerequisite: Grade of "C" or better in MIS-276 and MIS-123*

This course presents advanced topics in the development of Java Web components and is designed for students already skilled with the Java programming platform. The focus of study is on Java technology and models for servlets and JavaServer Pages (JSP) used to construct dynamic Web applications and includes topics on Web containers, session management, expression language, standard actions, standard and custom tags, deployment, security issues, and design patterns. This course will include a comprehensive final project and will help students prepare for the Sun Certified Web Component Developer (SCWCD) exam. Prior knowledge of XHTML, JavaScript, and XML will be useful but is not required. Fee is required. (4 contact hours)

**MIS-284—(3)**

**XML.NET Web Services**

*Prerequisite: Grade of "C" or better in MIS-239 or MIS-254*

*Grade of "C" or better in MIS-123*

Students will learn to create XML Web Services using their choice of C# or VB .Net. Full component development cycle issues will be addressed; including design, implementation, debugging, testing, and deployment. Topics will include ASP.NET, ADO.NET, XML, Remoting Objects, and the Web Services Architecture. Emphasis will be placed on preparing the student for MCAD Exams 70-310 and 70-320. Fee is required. (4 contact hours)

**MIS-285—(3)**

**ASP.NET Web Applications**

*Prerequisite: Grade of "C" or better in MIS-239 or MIS-254*

*Grade of "C" or better in MIS-123*

Students will learn to create ASP.NET web applications using their choice of C# or VB.NET. Full application development cycle issues will be addressed; including design, implementation, online user assistance, testing, and deployment. Topics will include XML Web Services, ADO.NET, globalization, security and authentication, optimization, structured exception handling, component creation, and session state management. Emphasis will be placed on covering topics for MCAD Exams 70-305 and 70-315. Fee is required. (4 contact hours)

**MIS-286—(3)**

**JAVA Software Development**

*Prerequisite: Grade of "C" or better in MIS-276 and MIS-123*

This course is an advanced study in software development for students already skilled with using the Java programming language. The design of both client-side and server-side applications is emphasized. Topics include design patterns, networking, relational database concepts, servlets, remote method invocations, Java Bean development, security, graphics, and multimedia. Fee is required. (4 contact hours)

**MIS-287—(3)**

**Visual BASIC For Applications**

*Prerequisite: MIS-139 with a grade of "C" or better and working knowledge of Excel and Access*

This course is designed to teach the use of Visual Basic for Applications (VBA) programming language to customize and automate office productivity applications. Emphasis is on the Object Model as applied to popular office spreadsheet and database applications. Fee is required. (4 contact hours)

**MIS-289—(3)**

**.NET Desktop Application Development**

*Prerequisite: Grade of "C" or better in MIS-239 or MIS-254*

*Grade of "C" or better in MIS-123*

Students will learn to create complete Windows desktop applications using their choice of C# or VB . NET. Full software development cycle issues will be addressed; including design, implementation, help system integration, testing, and deployment. Topics will include the .NET Framework, Structured Exception Handling, advanced Object-Oriented features (such as inheritance, polymorphism, patterns, etc.), ADO.NET, Crystal Reports, XML and Serialization, Globalization, Application Security, Remoting, and Web Services. Emphasis will be placed on covering topics on MCAD Exams 70-306 and 70-316. Fee is required. (4 contact hours)

**MIS-291—(3)**

**Systems Analysis and Design**

*Prerequisite: A grade of "C" or better in MIS-123*

This course teaches students how to apply object-oriented modeling techniques, tools and methodologies to define a system specification. Emphasis will be on following the Unified Process (UP) to analyze a real-world business problem, evaluate a variety of options, and design a solution within stated constraints. The focus will be on the earlier phases of the software development lifecycle and the application of the Unified Modeling Language (UML) use cases and design patterns. Students will apply what they are learning by actively participating in a semester-long project to design a solution to an identified business problem. (4 contact hours)

**MIS-292—(3)**

**SQL/Database Applications**

*Prerequisite: MIS-123 with a grade of "C" or better*

This course is designed to teach the use of Structured Query Language (SQL) to construct, modify, and maintain relational databases. Emphasis is on SQL and its uses in business applications. Hierarchical, network and relational models are covered. Additional topics include data redundancy, data independence, security, and data integrity. Fee is required. (4 contact hours)

**MIS-295—(3)**

**Internship**

*Prerequisite: Consent of instructor and minimum of 2.0 GPA after 30 credit hours of MIS curriculum*

This course emphasizes planned and supervised career field experience relating to a student's occupational program. Student works at least 15 hours a week. Topics include preparation for job search, resume and cover letter, job interviews, and professional development. Fee is required. (15 contact hours)

**MIS-296—(1)**

**Seminar**

*Prerequisite: Consent of coordinator*

Discuss internship activities and problems. Emphasis is on the operation of a complete system in an organization, teamwork and interpersonal skills. (1 contact hour)

**MIS-297—(3)**

**Data-Driven Websites**

*Prerequisite: OSA-135*

This course is designed to teach students how to create data-driven Web sites for e-commerce using popular development software tools. Students develop, implement, and work with databases, database connections, Web-enabled interfaces, server-side security, and shopping cart applications. User interface design principles for e-commerce storefronts and applications will also be examined. This is very much a technical, analytical and creative class. Students will apply what they are learning by actively participating in a semester-long project to design and develop a data-driven Web site. As the students develop this project throughout the semester, various e-commerce theories will be re-examined. Fee is required. (4 contact hours)

**MIS-298—(3)**

**E-Commerce Policy and Strategy**

*Prerequisite:* MIS-105, MIS-197 and MIS-297

This course is designed to provide students with a comprehensive and integrated understanding of e-commerce development from start to finish. The course will cover both technical and management concepts, and will allow students to work in groups while they apply their knowledge through hands-on exercises and case projects. Students will experience the relationship that develops between management and software engineering in a business environment as they develop an electronic commerce application. Topics include defining the entrepreneurial process; creating a business, marketing and financial plan; recognizing the characteristics and role that e-commerce plays in the global market; working with human resources; and developing an e-commerce Web site. (4 contact hours)

**MOA—Medical Assistant**

**MOA-115—(4)**

**Clinical Laboratory Procedures**

*Prerequisite:* MRT-110; and BIO-115 or PHB-110

This lecture/laboratory course emphasizes the performance of waived tests as approved by the Clinical Laboratory Improvement Amendments. Waived testing methods include point of care testing in urinalysis, hematology, chemistry, immunology and microbiology. Topics in specimen processing, record keeping, CPT coding, laboratory infection control, quality assessment, quality control and reference ranges of tests performed are also considered. (6 contact hours)

**MOA-130—(2)**

**Law and Ethics in HealthCare**

This course is designed to provide learners with a foundation in medical law and ethics. Topics include key points of law, interpretation of statutes, legal and regulatory guidelines that impact healthcare, as well as ethical dilemmas. Emphasis is given to the medical office professional's interaction with the legal profession. In addition to understanding patient rights, employee rights are also explored (2 contact hours)

**MOA-140—(3)**

**Medical Office Administration**

*Prerequisite:* MRT-110 and MRT-130

This course introduces the student to the role of the medical assistant. A medical assistant is an allied health professional who functions as a member of the multidisciplinary health care team. This course focuses on the administrative and general duties associated with medical assisting in an ambulatory care setting. Topics include administrative and general duties, safety practices, communication skills and techniques, patient reception, appointment scheduling, basic bookkeeping procedures, operational functions and the preparation and maintenance of medical records. Professionalism, ethical principles, reasoning and issues pertaining to confidentiality are emphasized. (4 contact hours)

**MOA-142—(2)**

**Medical Office Finance Systems**

*Prerequisite:* MRT-110 and MRT-130

This course surveys the various financial systems used in the medical office. An overview of banking, billing and coding procedures, and management of medical office finances is included. (3 contact hours)

**MOA-144—(2)**

**Pharmacology—Principles/Applications**

*Prerequisite:* MOA-140

This course follows a lecture/laboratory format. Instruction is provided in the basic concepts of pharmacology in medical assisting. Topics include the general aspects of pharmacology, legal and ethical issues in pharmacology, the mathematical knowledge necessary to calculate drug doses correctly, the principles and practices of medication administration, and medications related to body systems and patient education. (3 contact hours)

**MOA-147—(6)**

**Medical Assistant Clinic Procedures**

*Prerequisite:* BIO-115, MOA-130 and MOA-140

This course uses a lecture/laboratory format. This course provides the student with both the theory and practical applications of the clinical aspects of medical assisting. It is designed to provide the theoretical and practical basis for performing clinical procedures in the medical office/clinic setting. Topics include but are not limited to: patient assessment, basic psychological principles, physical examination and patient treatments, vital signs, patient education, medical emergencies and assisting the physician in medical specialty examinations and minor surgery. Students will learn the theoretical, technical and practical aspects of infection control, medical and surgical asepsis and EKG. Includes observation and performance of clinical procedures in a laboratory setting. Fee is required. (8 contact hours)

**MOA-155—(3)**

**Medical Assistant Externship**

*Prerequisite:* MOA-115, MOA-142, MOA-144, MOA-147, MRT-119 and PHB-110

*Corequisite:* MRT-156

Students are assigned to clinical affiliate sites for supervised clinical experience. Emphasis is on achieving competency in entry-level skills within the context of the ambulatory care setting. Fee is required. (10.3 contact hours)

**MOA-156—(1)**

**Medical Assistant Seminar**

*Prerequisite:* MOA-115, MOA-142, MOA-144, MOA-147, MRT-119, PHB-110

*Corequisite:* MOA-155

This course is designed as a capstone experience for students assigned to a medical assistant clinical rotation. Discussion topics include student reaction to supervised clinical experiences in an ambulatory care setting, professional issues, communication skills appropriate for a diverse patient population, and application of customer service skills. (1 contact hour)

**MRT—Health Information Technology**

**MRT-105—(3)**

**Beginning Medical Transcription**

*Prerequisite:* MRT-110, MRT-130, MRT-111, or permission of instructor; minimum typing speed of 50 corrected wpm

Transcription of medical communications from voice dictation using computers and transcribers. Authentic physician-dictated reports are transcribed with emphasis on development of accuracy, speed, and medical knowledge for transcription of letters, chart notes, history and physical examination reports, consultations, emergency room reports, and discharge summaries. Other techniques developed include using reference material and other resources efficiently, editing and proofreading techniques, and understanding professional issues in medical transcription. Grammar and punctuation review as well as terminology and document format are emphasized. (5 contact hours)

**MRT-106—(3)**

**Advanced Medical Transcription**

*Prerequisite:* MRT-105

Advanced level transcription of inpatient and outpatient medical and surgical documents suitable for permanent records of patient care. Transcriptionists proofreading and editing dictation. Application of medico-legal principles of inpatient and outpatient clinical settings. Transcribing reports of diagnostic and therapeutic areas of medicine from both inpatient and outpatient health care services. Clarifying and editing dictation discrepancies. (5 contact hours)

**MRT-107—(2)**

**Medical Transcription Clinical Practicum**

*Prerequisite:* MRT-106, MRT-120

This course is an internship experience concentrating on the development of advanced medical transcription skills on consultations, discharge summaries, history and physicals, special procedures, pathology reports and operative reports. In addition, students develop their skills using the web as a primary reference for medical/surgical terms. Students also expand their knowledge of advance word-processing skills and word expansion software. (6 contact hours)

**MRT-110—(3)**

**Medical Terminology**

Introduces various medical terms used in the health field. Emphasis is on analysis and building of medical terms using Greek and Latin prefixes, roots and suffixes. Abbreviations, eponyms, anatomical terms, and medical vocabulary that is not based on word elements are also reviewed. Definitions, spelling and pronunciation of medical terms are stressed. (3 contact hours)

**MRT-111—(4)**

**Health Information Management**

This course begins with an orientation to the health care delivery system, accreditation standards, health information management department, and health information manager. The second unit emphasizes health data content and structure, and the application of techniques to assure adequate documentation of health care in acute care and ambulatory settings. The third unit focuses on organization of primary and secondary health data systems. Unit four introduces legal and ethical issues applicable to health information, including confidentiality and release of information. (5 contact hours)

**MRT-112—(4)**

**Clinical Classification Systems**

*Prerequisite:* MRT-117, MRT-118

This course emphasizes advanced theory in coding and classification systems. The focus is on the development of skills needed for assignment of valid diagnostic and procedure codes using ICD-9-CM and HCPCS coding systems. It includes the validation of coded clinical information, and the study of the uses of coded data and health information in reimbursement and payment systems appropriate to all health care settings and managed care. (5 contact hours)

**MRT-113—(2)**

**Coding Specialist Clinical Practicum**

*Prerequisite:* MRT-112

This course concentrates on the development and reinforcement of advanced ICD-9-CM and CPT coding skills. This class is a continuation of MRT-112, dealing with advanced principles of coding using ICD-9-CM and CPT-4. Students will gain experience with coding health records from a variety of settings as well as topics related to compliance, medical necessity, encoding, DRG and APC grouping, chargemaster and case mix analysis. (6 contact hours)

**MRT-114—(3)**

**Health Care Computer Applications**

*Prerequisite:* MRT-117, MRT-118

This course is designed to introduce students to computer systems in health care with particular emphasis on the computerized medical record, health information management applications, medical transcription using a word processing system, database management via UHDDS abstracting systems focusing on data collection techniques and report generation. To correspond with the current emphasis on ambulatory record keeping, one unit will be dedicated to the use of computers in the medical office. Fee is required. (4 contact hours)

**MRT-115—(2)**

**Clinical Practicum I**

*Prerequisite: MRT-112, MRT-114, MRT-120*

Students are assigned to health information management and adjunct departments of various health care facilities of supervised clinical experiences and application of health information management theory, release of information and medical transcription. Emphasis is on the mastery of entry-level competencies. Fee is required. (6 contact hours)

**MRT-116—(2)**

**Clinical Practicum II**

*Prerequisite: MRT-112, MRT-115, MRT-119 or consent of instructor*

Students are assigned to Moraine Valley's health information technology and computer laboratories for supervised learning experiences. Emphasis is on mastery of entry-level competencies related to prospective payment system, inpatient ICD-9-CM coding, ambulatory ICD-9-CM coding, and health record computer applications involving health data abstracting, DRG assignment, health data presentation, encoding, and medical office management systems. (6 contact hours)

**MRT-117—(2)**

**Introduction to ICD-9-CM**

*Prerequisite: MRT-110, MRT-111 and MRT-130*

*Corequisite: Registration in MRT-118*

This course is an introduction to ICD-9-CM coding principles. The intent is to develop an understanding of coding and classification systems in order to assign valid diagnostic or procedure codes. (2 contact hours)

**MRT-118—(2)**

**Introduction to CPT**

*Prerequisite: MRT-110, MRT-111 and MRT-130*

*Corequisite: Registration in MRT-117*

This course is an introduction to CPT coding principles. The intent is to develop an understanding of coding and classification systems in order to assign valid CPT/HCPCS procedure codes. (2 contact hours)

**MRT-119—(1)**

**Insurance Reimbursement Procedures**

*Prerequisite: MRT-117, MRT-118*

This introductory medical insurance course provides students with the basics of filing medical insurance claims. Emphasis is on completion of insurance forms, identification of common types of medical insurance, manual and electronic claims processing, and reimbursement follow-up. (1.5 contact hours)

**MRT-120—(3)**

**Body Structure and Pharmacology**

*Prerequisite: MRT-110*

This course is a continuation of medical terminology with a focus on introduction to basic pathology and pharmacology terminology. The intent is to develop a knowledge base through the study of the structure and function of the human body, pathophysiology, diagnostic and treatment modalities, and pharmacy therapy available for clinical management of patient care. Emphasis is placed on the establishment of a knowledge base to facilitate development of coding and transcription skills. (3 contact hours)

**MRT-130—(1)**

**Computers in Allied Health**

Introduces computer technology to health care students by presenting fundamental computer terminology while stressing applications that are important to the delivery of health care. Emphasizes the PC and, more specifically, word processing, Internet, spreadsheet and database management. Fee is required. (1.5 contact hours)

**MRT-210—(4)**

**Introduction to Pathophysiology**

*Prerequisite: BIO-115, MRT-112, MRT-120*

This course is an introduction to the general principles of disease with the emphasis on the etiology, symptoms, signs, diagnostic finding, and treatment. Laboratory assignments build a clinical knowledge base that will continue to expand as the students learn from case studies, quality studies and related exercises. (5 contact hours)

**MRT-211—(4)**

**Health Statistics and Data Analysis**

*Prerequisite: MRT-112, MRT-114, MTH-109*

This course focuses on health care data analysis. It includes definitions and formulas for computing hospital and public health statistics, data collection, report generation, statistical quality control, and data display. In addition, research and continuous quality improvement study methodologies are introduced and applied to health information data quality projects. (5 contact hours)

**MRT-212—(3)**

**Medical Reimbursement Systems**

*Prerequisite: MRT-112, MRT-116, MRT-120*

A continuation of ICD-9-CM and CPT theory with emphasis on prospective payment system regulations, ambulatory care reimbursement issues, case mix analysis, and the impact of prospective payment on health care facilities. Other units of instruction include hospital and medical staff organization, managed care, accrediting, approving, licensing, and certifying agencies. (3 contact hours)

**MRT-213—(3)****Supervisory Techniques**

*Prerequisite:* MRT-211, MRT-215

*Corequisite:* Registration in MRT-216

Includes a study of the theory and practice essential to the efficient operation of a health information management department within an acute, ambulatory or long-term care setting. Emphasis is placed on application to enable students to easily transfer knowledge directly to the workplace. Students will complete organizational charts, policies, procedures, job descriptions, departmental layouts, schedules, budgets, performance evaluations, productivity monitors, and other activities normally completed at the supervisory level. (3 contact hours)

**MRT-215—(2)****Clinical Practicum III**

*Prerequisite:* MRT-112, MRT-114

Students are assigned to health information management and adjunct departments of affiliated health care facilities and to the Moraine Valley health information technology and computer laboratories for supervised clinical experiences and application of health information management theory. Emphasis is on mastery of entry-level competencies related to health information systems, health records, health statistics, health data presentation, classification and indexing systems, and practice management software. (6 contact hours)

**MRT-216—(5)****Clinical Practicum IV**

*Prerequisite:* MRT-211 and MRT-215

*Corequisite:* Registration in MRT-213 and MRT-218

Students are assigned to health information management and adjunct departments of affiliated health care facilities and to the Moraine Valley health information technology and computer laboratories for supervised clinical experiences and application of health information management theory. Emphasis is on mastery of entry-level competencies related to quality assurance systems, data quality in ICD-9-CM and CPT coding, cancer registries, ambulatory health record systems, and health records in long-term care and psychiatric facilities. (15 contact hours)

**MRT-218—(2)****Quality Management**

*Prerequisite:* MRT-211, MRT-114

*Corequisite:* Registration in MRT-216

This course focuses on quality management. It includes the five basic components of a hospitalwide quality program: quality assurance, quality improvement, utilization management, risk management, and credentialing. Quality applications are integrated throughout the course, stressing the importance of application, including data collection, statistical quality control, data display, and assessment. (2 contact hours)

**MTH—Mathematics****MTH-060—(1)****Whole Numbers and Fractions**

Includes basic operations with whole numbers and fractions. Introduces conversion of measurement units. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (1 contact hour)

*This course may be taken four times for credit.*

**MTH-070—(1)****Decimals and Percents**

*Prerequisite:* MTH-060

Includes operations with decimals, conversion of fractions to decimals and percents, decimals to fractions and percents, percents to decimals and fractions, and solutions of basic problems involving percents. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (1 contact hour)

*This course may be taken four times for credit.*

**MTH-080—(1)****Pre-Algebra Topics**

*Prerequisite:* MTH-070

Review of signed numbers, linear equations, and ratios and proportions. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (1 contact hour)

*This course may be taken four times for credit.*

**MTH-090—(3)****Developmental Math**

Emphasizes fractions and percentages. Signed numbers, the number line and order of operations are covered. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (3 contact hours)

*This course may be taken four times for credit.*

**MTH-095—(4)****Beginning Algebra**

*Prerequisite:* MTH-090 with a grade of "C" or better, or requisite score on math placement test

Topics include order of operations, the solution of linear and quadratic equations and linear inequalities, the rectangular coordinate system, operations with polynomials, factoring, rational expressions, and applications. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (4 contact hours)

*This course may be taken four times for credit.*

**MTH-097—(3)**

**Geometry**

*Prerequisite: MTH-095 with a grade of "C" or better, or requisite score on math placement test*

Covers axioms, theorems, points, lines, angles, angular and linear measure, coordinate geometry, two-dimensional geometric figures, and basic proofs. Credit hours for this course can be applied to full- or part-time status, but will not count toward graduation credits unless specified in your certificate or degree program. (3 contact hours)

**MTH-098—(4)**

**Intermediate Algebra**

*Prerequisite: 2 years of high school math, including algebra, and appropriate placement test score or MTH-095 with a grade of "C" or better*

Topics include factoring, operations with algebraic and rational expressions, equations, exponents and radicals, radical equations, first-and second-degree equations, functions and graphing, systems of linear equations, absolute value, one- and two-dimensional linear inequalities, and an introduction to logarithms. Credit for this course can be applied to full- or part-time status but will not count toward graduation unless specified in your certificate or degree program. MTH-098 was formerly MTH-101. Previous credits or grade earned in MTH-101 will not apply if student completes MTH-098. (4 contact hours)

*This course may be taken four times for credit.*

**MTH-102—(3)**

**Mathematics for Paraprofessionals**

*Prerequisite: MTH-090 with a grade of "C" or better or appropriate placement test score*

Designed for the elementary school paraprofessional, the topics include problem solving, sets of numbers, number theory, statistics, probability, geometric figures, measurement, and geometric motion. The course will satisfy the core requirement for the AAS or Certificate program for Elementary paraprofessionals. Students seeking general education math credit are advised to register for MTH-121 and MTH-122 if they are pursuing a teaching degree. (3 contact hours)

**MTH-109—(2)**

**Math for Allied Health**

*Prerequisite: 1 year of high school algebra and appropriate placement test score or MTH-095 with a grade of "C" or better*

Covers the common math requirements for students in allied health science. Includes measurement systems, ratios and proportion, and elements of statistics, with an emphasis on problem solving in the health science fields. (2 contact hours)

**MTH-120—(3)**

**General Education Mathematics**

*Prerequisite: 2 years of high school math including algebra and geometry, and appropriate placement test score, or MTH-097 and MTH-098 (or equivalent) with a grade of "C" or better*

This survey course is designed to help students develop competency in problem analysis and problem solving, multistep decision making, and quantitative reasoning. The course focuses on mathematical reasoning, mathematical modeling, and the solution of real-life problems involving mathematics. Analysis of mathematical models and written laboratory projects are integral parts of this course. Hand-held calculators and computers will be used as tools in decision making. The course covers three or four of the following topics in depth: counting techniques and probability, game theory, graph theory, linear programming, logic/set theory, mathematics of finance, and statistics. This course is not intended as a prerequisite for any other course in math and is not intended for engineering or science majors. Its primary goal is to help the general liberal arts student gain the level of numerical literacy and problem-solving skill necessary to become an educated citizen. (3 contact hours) IAI: M1 904

**MTH-121—(3)**

**Math for Teachers I**

*Prerequisite: 2 years of high school math, including algebra and geometry, and appropriate placement test score, or MTH-097 and MTH-098 (or equivalent) with a grade of "C" or better*

Designed for elementary education majors, topics include problem solving, number theory, numeration systems, mental, electronic and written computation of whole numbers, integers, fractions, decimals and percents. This course will satisfy the mathematics general education requirement for elementary education majors if MTH-122 has also been completed. Students seeking typical general education math credit at this level are advised to register for MTH-120 or MTH-139. (3 contact hours)

**MTH-122—(3)**

**Math for Teachers II**

*Prerequisite: MTH-121 with a grade of "C" or better or consent of instructor*

This course is a continuation of MTH-121. It is designed and intended for elementary education majors. Topics include real numbers, informal geometry, measurement, probability, statistics, and problem solving. This course will satisfy the mathematics general education requirement for elementary education majors if MTH-121 has also been completed. (3 contact hours) IAI: M1 903

**MTH-133—(2)**

**Math for Industry**

*Prerequisite: 2 years of high school math including algebra and appropriate placement test score or MTH-095; registration or credit in ELT-101*

The purpose of this course is to coordinate and integrate the necessary math skills with concepts presented in Electricity and Electronics. The objective is to keep pace with ELT-101, covering the same topics, but emphasizing the mathematics involved. (2 contact hours)

**MTH-135—(5)**

**Technical Mathematics**

*Prerequisite: 2 years of high school math including algebra and appropriate placement test score or MTH-095 with a grade of C or better*

Topics in algebra with physical applications. Recommended for students in the Electronics, and Design Drafting programs. (5 contact hours)

**MTH-139—(4)**

**Probability and Statistics**

*Prerequisite: 2 years of high school math, including algebra and geometry, and appropriate placement test score or MTH-097 and MTH-098 (or equivalent) with a grade of "C" or better*

Topics include gathering, organizing, presenting, and interpreting data; variability, uncertainty and hypothesis testing; methods of drawing inferences, making decisions from observed data, and probabilistic models. Students will be introduced to a statistical computer software package to help analyze and interpret data. Note: MTH-139 and MTH-212 cover the same basic core of statistics; however, MTH-212 moves at a faster pace, is more oriented toward business examples, and explores hypothesis tests to a greater depth. No more than four credit hours will be granted to students taking MTH-139 and MTH-212. Fee is required. (4 contact hours) IAI: M1 902

**MTH-141—(4)**

**College Algebra (Functions)**

*Prerequisite: 3 years of high school math including advanced algebra and appropriate placement test score or MTH-098 with a grade of "C" or better*

This functions approach to college algebra includes polynomial, rational, radical, exponential, and logarithmic functions. Effective and efficient use of graphing calculators will be an integral part of the course. (4 contact hours)

**MTH-142—(2)**

**Trigonometric Functions**

*Prerequisite: 3 years of high school math including advanced algebra and appropriate placement test score, or MTH-135 or MTH-141, or concurrent registration in MTH-141*

Trigonometric functions, their inverse functions, graphs, the unit circle, right triangle trigonometry, basic identities, trigonometric equations, and polar coordinates are studied. (2 contact hours) IAIM: MTM 901

**MTH-143—(4)**

**Finite Mathematics**

*Prerequisite: 3 1/2 years of high school math including pre-calculus or advanced algebra, and appropriate placement test score, or MTH-141 with a grade of "C" or better, or consent of instructor*

Business, economic, social, and biological problems are described and solved mathematically. Sets, probability, matrix algebra, linear programming, systems of equations and inequalities, exponential growth and annuities, and stochastic processes are considered. (4 contact hours) IAI: M1 906

**MTH-145—(4)**

**Calculus for Business and Social Science**

*Prerequisite: 3 1/2 years of high school math including pre-calculus or advanced algebra, and appropriate placement test score, or MTH-141 with a grade of "C" or better*

Introduces calculus through functions, differentiation and integration with applications to the business and social science fields. Note: No more than five hours of credit will be granted to students taking both MTH-145 and MTH-150. (4 contact hours) IAI: M1 900-B

**MTH-150—(5)**

**Calculus I/Analytic Geometry**

*Prerequisite: Four years of high school math including pre-calculus or advanced algebra with trigonometry and appropriate placement test score, or both MTH-141 and MTH-142 with grades of "C" or better NOTE: It is possible, but not advisable, for students to register for both MTH-142 and MTH-150 in the same semester.*

Topics include limits, continuity, the derivative, application of differentiation, curve sketching, anti-differentiation, and the definite integral. These topics are applied to polynomial, radical, rational, logarithmic, exponential, trigonometric, and hyperbolic functions. Note: No more than five hours of credit will be granted to students taking both MTH-145 and MTH-150. Note: It is possible, but not advisable, for students to register for both MTH-142 and MTH-150 in the same semester. (5 contact hours) IAI: M1 900-1 IAIM: EGR 901, MTH 901

**MTH-151—(5)**

**Calculus II/Analytic Geometry**

*Prerequisite: MTH-150 with a grade of "C" or better*

A continuation of MTH-150. Topics include applications of the integral, techniques of integration, indeterminate forms, improper integrals, infinite series, conic sections, polar coordinates, and parametric equations. (5 contact hours) IAI: M1900-2; IAIM: EGR 902, MTH 902

**MTH-152—(4)**

**Calculus III/Analytic Geometry**

*Prerequisite: MTH-151 with a grade of "C" or better*

A continuation of MTH-151. Topics include vectors, vector calculus, vector fields, solid analytic geometry, functions of several variables, partial derivatives, multiple integration, and applications. (4 contact hours) IAI: M1 900-3; IAIM: EGR 903, MTH 903

**MTH-201—(3)**

**Differential Equations**

*Prerequisite: MTH-151 with a grade of "C" or better or consent of instructor*

Introduces ordinary differential equations, methods of solution and applications. Topics include first order differential equations, linear differential equations, systems of linear differential equations, and solutions by Laplace transforms. (3 contact hours) IAIM: EGR 904, MTH 912

**MTH-210—(3)**

**Linear Algebra**

*Prerequisite: MTH-151 with a grade of "C" or better or consent of instructor*

Topics include vectors, vector spaces, matrices, determinants matrix algebra, linear independence, linear transformations, eigenvalues, eigenvectors, and applications of matrices and transformations. Approximately one third of the course involves the concept of mathematical proofs as applied to linear algebra. (3 contact hours) IAIM: MTH 911

**MTH-212—(4)**

**Statistics for Business**

*Prerequisite: 3 1/2 years of high school math including pre-calculus or advanced algebra, and appropriate placement test score, or MTH-141 with a grade of C or better*

Covers descriptive statistics, data presentation, analysis, and interpretation; sampling techniques, hypothesis testing for single and multiple samples; analysis of variance; selection of appropriate parametric and nonparametric statistical tests; correlation and regression; and multistep decision-making techniques in a business environment. Students use a statistical computer software package to analyze and interpret data. Note: MTH-139 and MTH-212 cover the same basic core of statistics; however, MTH-212 moves at a faster pace, is more oriented toward business examples, and explores hypothesis tests to a greater depth. No more than four credit hours will be granted to students taking MTH-139 and MTH-212. Fee is required (4 contact hours) IAI: M1 902; IAIM: BUS 901

**MUS—Music**

**MUS-103—(3)**

**Basic Musicianship**

The study of music theory to improve music performance and listening skills. Includes major and minor scales, intervals, study of rhythm, triads and their inversions, dominant seventh chords, and the concept of tonality. Practical exercises in the development of music dictation skills as well as beginning music composition are also included. This course is designed for students with previous musical training and experience. (4 contact hours)

**MUS-104—(3)**

**Music Theory I**

*Prerequisite: MUS-103*

*Corequisite: Registration or credit in MUS-115*

Covers four-part harmony in close and open structure, using major, minor, diminished and dominant seventh triads in root position and inversion. Practical exercises in music dictation, keyboard and sight-singing skills, as well as elementary music composition and analysis are also included. (5 contact hours) IAIM: MUS901

**MUS-105—(3)**

**Music Theory II**

*Prerequisite: MUS-104 and MUS-115*

*Corequisite: Registration or credit in MUS-116*

The study of four-part harmony according to established principles of harmonic progression. More advanced exercises in music dictation, keyboard and sight-singing skills, analysis and music composition. (5 contact hours) IAIM: MUS 902

**MUS-106—(3)**

**Introduction to American Music**

A survey of American music to include classical, country, jazz, blues, rock, and other forms of expression. Aside from musical considerations, attention will be given to past and present socio-cultural conditions influencing American musical traditions and styles. This is a general education course and does not require previous musical experience. (3 contact hours) IAI: F1 904

**MUS-107—(3)**

**Music Appreciation**

The study of classical music to provide basic listening skills, the ability to discuss music intelligently, and an acquaintance with the basic genres available to the listening public. This course is designed as a general education offering and does not require previous musical experience. (3 contact hours) IAI: F1 900

**MUS-115—(1)**

**Class Piano I**

For first-year pianists who wish to learn piano primarily for personal enrichment. Stresses rhythm, melody, reading, harmonization, and theoretical knowledge, along with beginning solo and ensemble repertoire. Must own or have access to keyboard/piano. Fee is required. (2 contact hours)

**MUS-116—(1)**

**Class Piano II**

*Prerequisite: MUS-115 or MUS-103*

A continuation of MUS-115 for students who wish to learn piano primarily for personal enrichment. Fee is required. Must own or have access to keyboard/piano. (2 contact hours)

**MUS-117—(1)**

**Class Voice**

For singers who wish to learn how to sing properly, primarily for personal enrichment. Stresses proper breathing and vocal technique, elementary musicianship, as well as beginning song repertoire from folk music, musical theater and art songs. Fee is required. (2 contact hours)

**MUS-119—(1)**

**Class Guitar**

*Prerequisite: Must own guitar*

For those who wish to learn how to play guitar primarily for personal enrichment. Stresses learning basic chords, elementary musicianship, as well as beginning strumming and fingerpicking techniques. Fee is required. Must own or have access to guitar. (2 contact hours)

**MUS-121-124—(1)**

**Individual Voice Instruction I-IV**

*Prerequisite: MUS-117 or permission of music coordinator*

For students who wish to take voice lessons primarily for personal enrichment. Includes developing correct vocal production and the introduction of a body of literature appropriate for each individual's own singing voice. Half-hour private lesson weekly; five hours of assigned practice. Fee is required. (.5 contact hours)

**MUS-125-128—(2)**

**Advanced Voice Instruction I-IV**

*Prerequisite: MUS-124 or permission of music coordinator*

For students who wish to study voice privately and who plan to continue studies at a four-year institution. Includes foreign language study. One hour-long lesson weekly (1 contact hour) IAİM: MUS 909

**MUS-131-134—(1)**

**Individual Piano Instruction I-IV**

*Prerequisite: MUS-115 or permission of the music coordinator*

For students who wish to take piano lessons primarily for personal enrichment. Includes study of both piano technique and solo literature appropriate for the student. Half-hour private lesson weekly; five hours of assigned practice. Fee is required. (.5 contact hours)

**MUS-135-138—(2)**

**Advanced Piano Instruction I-IV**

*Prerequisite: MUS-134 or permission of music coordinator*

For students who wish to study piano privately and who plan to continue studies at a four-year institution. Includes both solo and accompanying literature. One hour-long lesson weekly (1 contact hour) IAİM: MUS 909

**MUS-141-144—(1)**

**Moraine Valley Chamber Singers I-IV**

*Prerequisite: Consent of instructor*

This vocal ensemble is organized to explore a wide variety of contemporary singing styles. Performances include three concerts per academic year. Fee is required (3 contact hours) IAİM: MUS 908

**MUS-145-148—(1)**

**College-Community Chorus**

*Prerequisite: Consent of instructor*

This vocal ensemble is a community-based choir. The ensemble annually performs five themed concerts including Broadway music, operatic, patriotic, and holiday selections. Fee is required (3 contact hours) IAİM: MUS 908

**MUS-151-154—(1)**

**Moraine Valley Jazz Ensemble**

An ensemble of students devoted to exploring all styles and idioms of American jazz, including dixieland, swing, be-bop, cool bop, free jazz, and fusion. Performs several concerts each year, both on and off campus. May be repeated up to three times. Fee is required. (3 contact hours) IAİM: MUS 908

**MUS-161-164—(1)**

**Instrumental Chamber Ensemble I-IV**

*Prerequisite: Consent of instructor*

Students participate in various combinations of wind, string and percussion groups, entailing little or no doubling of parts, to explore and experience performance with an appropriate range of musical literature. Size, doubling and instrumentation can vary, ranging from duets, trios, quartets, quintets, etc., to chamber ensembles of up to 15 performers. Public performance in recitals and concerts. Fee is required. (2 contact hours) IAİM: MUS 908

**MUS-175-178—(1)**

**College-Community Band**

*Prerequisite: Consent of instructor*

Participation in an established community band, including at least two performances each semester of traditional literature for concert band. Emphasis placed on group intonation, ensemble blend, musical nuance, and classic band repertoire. Fee is required. (3 contact hours) IAİM: MUS 908

**MUS-181-184—(1)**

**Individual Guitar Instruction I-IV**

*Prerequisite: MUS-119 or permission of music coordinator*

For students who wish to take guitar lessons primarily for personal enrichment. Includes study of both guitar technique and literature appropriate for the student. Half-hour private lesson weekly; five hours of assigned practice. Fee is required. (.5 contact hour)

**MUS-185-188—(2)**

**Advanced Guitar Instruction I-IV**

*Prerequisite: MUS-184 or permission of music coordinator*

For students who plan to major in music at a four-year institution. Includes both solo and accompaniment literature, and performance experience. One hour-long private lesson weekly (1 contact hour) IAİM: MUS 909

**MUS-191—(1)**

**Individual Instrument Instruction I**

*Prerequisite: MUS-104, MUS-116 and permission of music coordinator*

For students wishing to study an instrument other than piano or voice. Receive private lessons with an outside contractor arranged by the music coordinator. It is necessary to declare your intention to transfer to a four-year institution as a music major. (.5 contact hour)

**MUS-192—(1)**

**Individual Instrument Instruction II**

*Prerequisite: MUS-105, MUS-116, MUS-191*

This course is a continuation of MUS-191. (.5 contact hour)

**MUS-204—(3)**

**Music Theory III**

*Prerequisites: MUS-104 and MUS-105*

This course is a continuation of the study of diatonic and chromatic harmony along with form and analysis. Harmonic vocabulary includes secondary dominants, borrowed chords, Neapolitan chords, and augmented sixth chords. The course includes advanced exercises in music dictation, keyboard, sight-singing skills, analysis, and music composition. (5 contact hours)

**MUS-205—(3)**

**Music Theory IV**

*Prerequisite: MUS-204*

The culmination of the four-semester freshman/sophomore theory sequence, this course builds upon the student's knowledge of chromatic harmony and composition along with form and analysis, and 20th century compositional methods. Harmonic vocabulary includes ninth, eleventh, and thirteenth chords, chromatic modulation, modal harmonies, non-tertian harmonies, atonality, polymeter, and twelve-tone systems. (5 contact hours)

**MUS-206—(3)**

**Music History and Literature I**

Survey of styles, periods, and personalities in music literature. Includes historical development; relationship to other fine arts; study of concepts, idioms; and aesthetics in music literature; comparison of styles; variety of genres; stylistic traits of selected eras; and survey of literature for performance by musical instruments, keyboard, and voice. The first semester includes material from antiquity to 1750. Background in music is suggested, but not required. (3 contact hours)

**MUS-207—(3)**

**Music History and Literature II**

Survey of styles, periods, and personalities in music literature. Includes historical development; relationship to other fine arts; study of concepts, idioms; and aesthetics in music literature; comparison of styles; variety of genres; stylistic traits of selected eras; and survey of literature for performance by musical instruments, keyboard, and voice. The second semester includes material from 1750 to the present. Background in music is suggested, but not required. (3 contact hours)

**NAT—Natural Science**

**NAT-111—(4)**

**Environmental Science I**

This interdisciplinary analysis of man's environment stresses the physical, biological and ecological aspects. Man's relationship to the natural environment and responsible stewardship are emphasized. The units of study are water, wildlife, population/resources, and geology. Fee is required. (6 contact hours) IAI: L1 905L

**NAT-112—(4)**

**Environmental Science II**

An interdisciplinary analysis of man's environment which stresses physical, biological and ecological aspects. Man's relationship to the natural environment and responsible stewardship are emphasized. The units of study are vegetation, soils, weather/climate, and urban land use. Fee is required. (6 contact hours) IAI: L1 905L

**NAT-201—(4)**

**Environmental Problems**

*Prerequisite: NAT-111 and NAT-112 or consent of instructor*

Study modules on resource problems, chemicals and the environment, waste disposal, and land use. Each module equals one credit. Deals with political aspects and environmental philosophy of selected problems. Outdoor activities are scheduled. Fee is required. (variable contact hours)

**NUR—Nursing**

**NUR-113—(3)**

**Care of the Adult I**

*Prerequisite: CNA certificate; COL-101; acceptance into the Nursing program; CPR certification--must have copy on first day of the course*

Focuses on the basic principles of behavioral and natural sciences in studying the master concept of homeostasis and the human responses of affiliation, protection, transportation, and regulation. These concepts serve as a framework for teaching the theories of health-illness, the adult, professional accountability, and psychosocial and physiological health. Supervised laboratory experience and clinical experiences enable the student to integrate cognitive, affective and psychomotor skills in caring for the adult. Fee is required. (5.5 contact hours)

**NUR-114—(4)**

**Care of the Adult II**

*Prerequisite: NUR-113; registration in BIO-180 and NUR-117*  
This course applies fundamental principles of behavioral and natural sciences with emphasis on the adult. The human responses of homeostasis, affiliation, transportation, and regulation and protection are studied as they relate to pharmacology, nutrition, cultural diversity, and legal aspects of nursing. Students integrate cognitive, affective and psychomotor skills in caring for adults in a hospital setting and identify available community health resources. Structured laboratory and clinical experiences provide opportunities to apply principles of communication, documentation and decision making in nursing practice as it applies to the nursing process. Fee is required. (7 contact hours)

**NUR-117—(1)**

**Pharmacology I**

*Prerequisite: Acceptance into Nursing program; registration in NUR-113 and NUR-114*  
The purposes of this course are to introduce students to the basic concepts of pharmacology in nursing: pharmacokinetics, pharmacodynamics, the role of the nurse in medication administration, and to increase the student's knowledge of the less complex medications, their actions, purposes, dosages, side effects, contraindications, toxic effects, and interactions. The students will increase their ability to calculate dosages safely and in a timely fashion. The course will utilize the nursing process as it applies to the assessment, diagnosis, intervention, and evaluation of medical therapy. Fee is required. (1 contact hour)

**NUR-134—(6)**

**Adult Medical Surgical Nursing**

*Prerequisite: NUR-113, NUR-114, BIO-180 and PSY-104*  
*Corequisite: Registration in BIO-119 and BIO-181*  
Nursing 134 builds upon basic concepts provided by Nursing 113 and 114. Using the nursing process, This course addresses commonly occurring alterations in human responses of protection, regulation, transportation, and affiliation. These concepts are integrated to provide for planned clinical experiences. Opportunities are provided for new learning experiences in applying concepts, scientific principles, integration of psychosocial aspects of client care, and psychomotor skills. Fee is required. (11 contact hours)

**NUR-137—(4)**

**Psychiatric Mental Health Nursing**

*Prerequisite: NUR-113, NUR-114, PSY-104;*  
*Corequisite: Registration in BIO-119, BIO-181, NUR-138*  
Uses the nursing process to examine various behavioral alterations. Emphasizes application of observational skills, interpersonal relationships, interviewing, and psychodynamics of human behavior related to the client and family. Develops additional self-awareness. Covers selected psychiatric settings used to provide experience in meeting the needs of the client exhibiting behavioral alterations. Emphasizes provider of care, communicator, client/teacher, manager of client care, and member within the practice of nursing. Fee is required. (8 contact hours)

**NUR-138—(1)**

**Pharmacology II**

*Prerequisite: Admission to Nursing program and NUR-117*  
*Corequisite: Registration in NUR-134 and NUR-137*  
The purposes of this course are to increase the student's knowledge of more complex medication actions, purposes, dosages, side effects, contraindications, toxic effects and drug interactions; increase the student's ability to calculate intravenous, intensive care and pediatric dosages safely and in a timely fashion; and to enable the student to evaluate the therapeutic effects of medications. (1 contact hour)

**NUR-180—(1)**

**Physical Assessment for Nursing**

*Prerequisite: NUR-113, NUR-114, BIO-180, BIO-181*  
This course will incorporate both lecture and practice sessions, using a physiological systems approach, to assist the student to acquire and utilize the skills necessary to safely assess a client. Students will then use this acquired knowledge to make nursing decisions about the client needs. This course will utilize the ADN program concepts of transportation, protection, regulation, and affiliation to assist the student to understand and implement a total health assessment which will provide the foundation for individualized health care planning. Fee is required. (1.5 contact hours)

**NUR-203—(5)**

**Maternity Nursing**

*Prerequisite: NUR-117, NUR-134, NUR-138, current CPR certification and current Mantoux test and Hepatitis vaccination*  
Applies previously learned concepts of transportation, affiliation, protection, and regulation to the childbearing family. Emphasis is placed on utilization of the nursing process: assessment, planning, intervention, and evaluation in dealing with the expanding family. Particular attention is given to needs of individuals and family units during antepartal, intrapartal and postpartal periods. Using a variety of inpatient and outpatient units, as well as community-based resources, enables students to implement theoretical concepts in meeting the needs of families during the childbearing process. Fee is required. (10.5 contact hours)

**NUR-204—(5)**

**Pediatric Nursing**

*Prerequisite:* NUR-117, NUR-138, NUR-203

Applies previously learned human responses of homeostasis, transportation, affiliation, protection, and regulation to the child-rearing family. Explores use of the nursing process in dealing with the pediatric client and family. Particular attention is given to needs of individuals and their families during stages of growth, development and wellness. Pediatric units cover selected learning experiences to implement theoretical concepts in meeting needs of pediatric clients and their families. Fee is required. (10 contact hours)

**NUR-205—(5)**

**Advanced Medical Surgical Nursing**

*Prerequisite:* NUR-203, NUR-204, NUR-180;

*Corequisite:* Registration in NUR-208

Students are assigned clients with complex alterations of homeostasis focusing on interrelationships between selected physiological functions, behavioral manifestations and responses of clients in the acute care setting. Presents methods of crises intervention are presented as related to clients and families experiencing stress in response to complex alterations. Discharge planning for the client with complex alterations is emphasized. Students will have the opportunity to utilize and analyze the effectiveness of discharge planning through an observational home health experience. Selected hospital units and departments are utilized to implement the nursing process while caring for clients and families experiencing complex alterations of homeostasis. Fee is required. (11 contact hours)

**NUR-206—(5)**

**Leadership/Management**

*Prerequisite:* NUR-205

The theoretical and clinical components are a continuation of NUR-205. Students will continue to focus on interrelationships between selected physiological and behavioral functions and responses of clients in the acute care setting in order to provide unity and integration. Management principles of self, groups of clients and other staff are introduced using previously learned principles of group dynamics and effective communication. Students will continue to have the opportunity to utilize and analyze the effectiveness of discharge planning through an observational home health experience. In selected hospital units, students practice roles as managers of client care. Students see themselves in the role of graduate nurse in relationship to the client, family and community. Fee is required. (11 contact hours)

**NUR-208—(2)**

**Professional Nursing Issues Seminar**

*Prerequisite:* NUR-113, NUR-114

This nursing seminar, utilizing the human response framework of affiliation, prepares the student for the role of graduate nurse. Nursing history, defining nursing, legal and ethical implications, nursing organizations, continuing education, and current issues in nursing are identified and discussed. (2 contact hours)

**OSA—Office Systems and Applications**

**OSA-100—(1-3)**

**Keyboarding I**

The content of the first credit is appropriate for personal keyboarding and is designed to develop keyboard mastery, fundamental keyboarding techniques, and continuous accurate keyboarding. The second and third credits are required for office careers programs and introduces business letters, tabulation problems and manuscript forms. Fee is required. (variable contact hours)

**OSA-102—(3)**

**Document Formatting**

*Prerequisite:* OSA-100 or ability to keyboard 26 nwpm; registration or credit in OSA-104

Reinforces proper keyboarding techniques with further instruction in letter, manuscript, tabulation, and business form placement. Emphasizes document production employing the features of popular word processing software and personal computers. Fee is required. (4 contact hours)

**OSA-103—(3)**

**Office Language Skills**

*Prerequisite:* Grade of B or better in COM-085 or appropriate score on placement test

Designed to give the office worker a solid foundation in the basics of English grammar, punctuation and expression. Emphasis is on parts of speech, sentence structure, grammar, and punctuation. Other topics include spelling, vocabulary building, capitalization, and numbers expression. The use of current dictionaries and reference materials also will be presented. (3 contact hours)

**OSA-104—(1)**

**Keyboarding Speed and Accuracy**

*Prerequisite:* OSA-100 or ability to keyboard 26 nwpm

Intended to refine keyboarding skills using an individualized diagnostic/prescriptive method for developing accuracy and speed. Fee is required. (2 contact hours)

**OSA-116—(1)**

**Outlook**

*Prerequisite:* IMS-115

This course features the concepts, terminology and techniques involved in utilizing a popular messaging and personal information management program, specifically Microsoft Outlook. Tools and commands will be utilized to e-mail, schedule appointments and meetings, create and maintain contact lists, create task lists, maintain journals for recording and tracking activities, and create notes and reminders. Students who successfully complete this course will possess the skills and knowledge necessary to undertake the Microsoft Office User Certification test for Outlook. Students must be comfortable in and familiar with the Windows environment. Fee is required. (1.5 contact hours)

**OSA-122—(3)**

**Electronic Spreadsheets**

*Prerequisite: IMS-115*

Introduces spreadsheet software for microcomputers to build worksheets, determine formulas, use functions, and prepare simple graphs. Students use popular commercial spreadsheet software with laser printers. Fee is required. (4 contact hours)

**OSA-125—(3)**

**Introduction to Website Design**

*Prerequisite: IMS-101 or IMS-115; MIS-111; and MIS-141*

This course provides a strong understanding of Web design principles in the planning, building, publishing, maintaining, and publicizing of a Web site. The course focuses on the complete Web development cycle from the conception of the idea of a site through the building and publishing of the site. Construction components for this course will focus on WYSIWYG editors and computer animation programs. Fee is required. (4 contact hours)

**OSA-135—(3)**

**Website Applications**

*Prerequisite: IMS-115 and MIS-111 and MIS-141*

Introduction to Web page development using several popular software applications. The course covers the use of software tools and commands to create and enhance Web pages with text and graphics. Techniques and effects include using templates, themes, lists, hyperlinks, tables, forms, and frames. Layout and design principles for a Web page are included. Development of low-bandwidth animations, vector-based web content will also be covered. Fee is required. (4 contact hours)

**OSA-145—(3)**

**PC Word Processing**

*Prerequisite: IMS-115 and keyboarding ability of 35 nwpm*

Development of techniques and skills used on a personal computer with word processing software. Basic operations include word wrap, insertions and deletions, and formats. Advanced features include list/merge, spelling verification and justification. Fee is required. (4 contact hours)

**OSA-225—(3)**

**Microsoft Publisher**

*Prerequisite: IMS-115 or IMS-101*

This course introduces students to the concepts, techniques and features of Microsoft Publisher. Students will design publications such as fliers, newsletters, brochures, business forms, and business cards. Other projects include integrating with Microsoft Office applications, developing an e-commerce Web site, publishing Web pages, and utilizing photo editing tools. This course will be delivered using a hands-on methodology whereby students will create Publisher projects in a computer lab environment. Fee is required. (4 contact hours)

**OSA-230—(3)**

**Business Presentations**

*Prerequisite: IMS-115*

Introduces business presentation software. Basic types of charts, slide shows, editing, and printing are covered. Requires individual preparation of a slide show. Fee is required. (4 contact hours)

**OSA-232—(3)**

**Desktop Publishing**

*Prerequisite: MIS-146*

Hands-on, practical introduction to desktop publishing software. Techniques of using rulers, guides, grids, and typography are covered. Create newsletters, brochures, fliers, and multipage documents, importing text and graphic files. Fee is required. (4 contact hours)

**OSA-234—(3)**

**Introduction to PC Graphics**

*Prerequisite: MIS-146*

Introduction to drawing and illustration software. Use of tools to create and enhance shapes and text on a page. Technique and effects include rotation, weld, combine, trim, and intersection. Layout and design principles are included. Fee is required. (4 contact hours)

**OSA-235—(3)**

**Desktop Publishing Applications**

*Prerequisite: OSA-232*

Practical application and further development of skills using graphics and desktop publishing software. Emphasizes independent work and decision making in the revision and creation of newsletters, brochures, forms, directories, reports, and other business publications. Create text files and graphic images, and use imported files. Fee is required. (4 contact hours)

**OSA-236—(3)**

**PC Graphics Applications**

*Prerequisite: OSA-234*

This course continues skill development using illustration software and introduces bitmap editors. Covers use of tools and commands to create and enhance vector art bitmaps and photographs. Techniques and effects include using layers and channels, correcting images, creating masks using filters, and working with color models. Layout and design principles are included. Fee is required. (4 contact hours)

**OSA-243—(2)**

**Business Writing**

*Prerequisite: Grade of "C" or better in OSA-103 and typing ability of 25 net wpm*

Prepare letters, memos, reports, tables, and other business documents using handwritten, typewritten and dictated sources. Emphasis is on organization, clarity, professionalism, dictation procedures, and equipment operation. Fee is required. (3 contact hours)

**OSA-246—(3)**

**PC Applications Integration**

*Prerequisite: OSA-145*

Introduces advanced word processing features and also includes the integration of word processing with other suite applications, such as spreadsheets, databases and presentation graphics. Topics include graphics, templates, styles, columns, tables, charts, and the Internet. This course ideally should be taken during a student's last semester in a program, as overall document production skills will be assessed. Fee is required. (4 contact hours)

**OSA-249—(3)**

**Accounting for Office Professionals**

Develop an understanding of accounting principles, procedures and applications. Learn how each step of the accounting cycle relates to the operations of the contemporary business office. Transactions are analyzed, recorded manually and electronically, and financial statements are developed and interpreted. Develop skills necessary to convert a manual accounting system to a computerized accounting system. (4 contact hours)

**OSA-250—(2)**

**Records Management**

Managing office records by means of correct filing systems is covered. Storage and retrieval systems, companywide systems, and the use of electronic filing systems and procedures are explored. (2 contact hours)

**OSA-252—(3)**

**Legal Terminology and Procedures**

*Prerequisite: OSA-102 or OSA-145 and grade of "C" or better in OSA-103*

Prepare for work in a legal office. Legal procedures, terminology, transcription, and references are covered. Use word processing software to prepare legal documents, correspondence and forms. Fee is required. (4 contact hours)

**OSA-255—(3)**

**Administrative Office Procedures**

*Prerequisite: OSA-102 or OSA-145 and grade of "C" or better in OSA-103*

A capstone course for administrative assistant and office administrator students, this course covers decision-making competencies, human relations techniques, and operational skills needed to meet requirements in corporate and small business offices. Technology and procedures, document creation and distribution, research and organization of information, travel and conference planning, and financial and legal procedures are covered. (4 contact hours)

**OSA-257—(3)**

**Database Management**

*Prerequisite: IMS-115*

Presents the features of a popular database management system. Topics include identifying terminology associated with database software, designing the structure of tables, printing reports and mailing labels, and designing queries. Students will create screen forms for easy data entry, use controls to validate data, and incorporate OLE objects. Touch typing ability is recommended. Students must be comfortable in and familiar with the Windows environment (how to use Explorer or My Computer to copy, rename, and delete files, and how to change folders and find files). Fee is required. (4 contact hours)

**OSA-258—(3)**

**Internship**

*Prerequisite: Consent of instructor and 2.0 GPA after 30 hours of first-year curriculum*

Planned and supervised career field experience relating to a student's occupational program is emphasized. Student works at least 15 hours a week. Fee is required. (15 contact hours)

**OSA-260—(1)**

**Seminar**

Discuss internship activities and problems, and development of professional attitude. Closes gaps between theory and on-the-job reality. (1 contact hour)

**OSA-275—(3)**

**PC Applications for Power Users**

*Prerequisite: IMS-215 or both OSA-122 and OSA-257*

Teaches advanced topics in PC application development by using both a conceptual and hands-on approach. Focuses on the study of Visual Basic for Applications (VBA) and will provide students with opportunities to gain experience using VBA to create advanced spreadsheet and database applications. This is an applications programming class for students with little or no programming experience. The fundamentals of Visual Basic programming will be examined and later applied to spreadsheet and database applications. Popular development software will be utilized in class projects and other hands-on assignments and demonstrations. Students should be aware and comfortable understanding there are both theoretical and practical components to this course. Fee is required. (4 contact hours)

**PEH—Physical Education and Health**

**PEH-101—(1)**

**Adaptive Physical Education**

Introduces fundamental skills, modified recreational games, dance and fitness, and aquatics for the benefit of physical exercise and leisure-time activity. Fee is required. (2 contact hours)

**PEH-105—(1)**

**Physical Fitness**

*Prerequisite: HF3-100—HFC Intro—The student must complete this mandatory session prior to beginning all course work and activity. A medical release may be required.*

This course is designed to build fitness knowledge and level by introducing students to exercise workouts involving cardiovascular conditioning, weight training and flexibility. Students will learn to use free weights, weight machines and cardio exercise machines. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-107—(1)**

**Introduction to Group Fitness**

This class is designed for students interested in learning and achieving fitness through cardiovascular, strength, and flexibility training at an introductory low level. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-108—(1)**

**Weightlifting**

*Prerequisite: HF3-100—HFC Intro—The student must complete this mandatory session prior to beginning all course work and activity. A medical release may be required.*

This course is designed to give the student knowledge of weight training guidelines and basic skills, which will allow him/her to successfully perform an individual weightlifting program. Fee includes membership in the Moraine Valley Health Fitness Center. Fee is required. (2 contact hours)

**PEH-110—(1)**

**Ballet I**

Learn the principles of ballet and elements of technique, through barre and center work, to develop fundamental dance skills acquired through beginning dance techniques, combinations and choreography. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-111—(1)**

**Ballet II**

*Prerequisite: PEH-110 or consent of instructor*

Continuation of beginning ballet with additional elements of technique, in barre and center work, to further develop fundamental ballet skills previously acquired into intermediate levels of dance techniques, combinations and choreography. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-112—(1)**

**Jazz Dance I**

Learn the principles of jazz dance and elements of technique to develop fundamental jazz dance skills acquired through beginning dance techniques, combinations and choreography. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-113—(1)**

**Jazz Dance II**

*Prerequisite: PEH-112 or consent of instructor*

Continuation of beginning jazz with additional elements of technique and further development of fundamental jazz dance skills previously acquired into intermediate levels of dance techniques, combinations and choreography. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-117—(1)**

**Modern Creative Dance I**

This course teaches concepts of modern dance, creative movement, dance patterns and techniques. Explore qualities of movement, improvisation and ability to create and explore body awareness through movement and self expression. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-118—(1)**

**Modern Creative Dance II**

*Prerequisite: PEH-117 or consent of instructor*

Continuation of beginning modern dance with further exploration of creative movements, patterns, and the ability to create and explore body awareness through movement and self expression at an intermediate level. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-120—(1)**

**Introduction to Body/Mind Fitness**

Learn a progressive series of exercises designed to increase strength, flexibility, and balance for the body, mind, and spirit. Movements are derived from the classic disciplines of yoga, Pilates, traditional stretching, and meditation. The course foundation is in unified body training, core stabilization, and mindful movement. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-130—(1)**

**Basketball I**

Covers knowledge, skills and strategies used in basketball. Fee is required. (2 contact hours)

**PEH-131—(1)**

**Volleyball**

Basic knowledge, fundamental skills and team strategies used in power volleyball are covered. Fee is required. (2 contact hours)

**PEH-132—(2)**

**Fundamentals of Football**

Learn offensive and defensive systems used in modern college football. Analyze new techniques and philosophies employed by modern coaches. Fee is required. (3 contact hours)

**PEH-133—(1)**

**Basketball II**

*Prerequisite: PEH-130*

Skills, knowledge and strategies used in college-level competitive basketball are explored. Fee is required. (2 contact hours)

**PEH-134—(2)**

**Baseball**

Introduces basic baseball concepts, teaching progressions of fundamental baseball skills, team offensive and defensive strategies, and conditioning. Fee is required. (3 contact hours)

**PEH-138—(1)**

**Cardiovascular Conditioning**

*Prerequisite: HF3-100–HFC Intro—The student must complete this mandatory session prior to beginning all course work and activity. A medical release may be required.*

This course is designed to help students develop and maintain cardio respiratory fitness through regular aerobic exercise using various types of cardiovascular equipment. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-140—(1)**

**Weight Training**

*Prerequisite: HF3-100–HFC Intro—The student must complete this mandatory session prior to beginning all course work and activity. A medical release may be required.*

This course is designed to help students develop their own weight training program by expanding their knowledge of weight training guidelines and principles for developing muscular strength, endurance, power and muscle symmetry through the use of free weights, weight machines and other training equipment. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-141—(1)**

**Classic Cardio Fitness**

This course is designed for students interested in achieving fitness through cardiovascular strength and flexibility training at low to moderate levels. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-142—(1)**

**Cardio Cross Training**

This course is designed for students interested in achieving fitness through cardiovascular conditioning, strength/endurance and flexibility training at moderate to high levels while engaging in a variety of cross training exercises. Fee includes membership at Moraine Valley's Health Fitness Center. Fee is required. (2 contact hours)

**PEH-143—(1)**

**Aerobics III (Life Fitness)**

Designed for students who desire to improve the cardiovascular system using aerobic and calisthenic routines. This aerobic course combines low-impact with higher-impact aerobics for an energy-filled routine. Excellent for increasing muscle tone, cardiovascular fitness, and losing pounds and inches. Fee is required. (2 contact hours)

**PEH-144—(1)**

**Dance Cardio Fitness**

This course is designed for students interested in achieving fitness through cardiovascular, strength and flexibility training at moderate to high levels, while engaging in a variety of dance styles and elements. Fee is required. (2 contact hours)

**PEH-150—(3)**

**Introduction to Physical Education**

Open to physical education majors, this course encourages professional understanding of the scope and nature of physical education and related fields. (3 contact hours)

**PEH-151—(2)**

**Lifetime Activities—Net Games**

Explore basic skills, strategies and rules of net games: badminton, tennis, paddleball and table tennis. Emphasizes teaching methods and techniques. Fee is required. (4 contact hours)

**PEH-152—(2)**

**Lifetime Activities—Conditioning**

Fundamentals of conditioning and aquatic activities, organization of programs and teaching methods are included. Fee is required. (4 contact hours)

**PEH-153—(2)**

**Lifetime Activities—Archery and Golf**

Explore basic form, techniques, terminology, and equipment used in archery and golf. Emphasizes teaching methods and course organization. Fee is required. (4 contact hours)

**PEH-154—(2)**

**Team Sports**

Learn basic skills, strategies, rules, and officiating procedures used in team sports such as basketball and volleyball. Emphasizes teaching methods and techniques. Fee is required. (4 contact hours)

**PEH-160—(3)**

**Fundamentals of Human Movement**

This course presents an analysis of human movement with emphasis on the muscular and skeletal systems. Topics covered include basic movement activities, human movement in sports and fitness and requirements of successful motor performance. Fee is required. (4 contact hours)

**PEH-161—(4)**

**Fitness Methodology**

*Prerequisite: Registration or credit in PEH-160*

This course emphasizes the methodology and applications used with cardio-respiratory, muscular strength and endurance development, flexibility and relaxation training exercises. The course explores fitness through practical and theoretical application in basic physiology and kinesiology as it relates to movement and exercise. Fee is required. (5 contact hours)

**PEH-162—(3)**

**Fitness Testing and Promotion**

*Prerequisite: PEH-161*

This course examines methods for testing and evaluating individual health status and fitness levels. Monitor, conduct and interpret fitness tests in cardio-respiratory, muscular strength/endurance, flexibility and body composition. Analyzes promotion as it relates to the fitness field including marketing, advertising, communications and public relations. Fee is required. (4 contact hours)

**PEH-163—(3)**

**Fitness Programming**

*Prerequisite: PEH-161*

This course explores exercise programming methods, theories and guidelines for all fitness components for healthy and special populations through practical teaching experiences. It emphasizes developing implementing and analyzing exercise programs for cardio-respiratory, muscular strength and endurance, and flexibility training. Students will gain the knowledge necessary to become an effective and successful fitness/personal trainer. Fee is required. (4 contact hours)

**PEH-170—(3)**

**First Aid**

Designed to teach students the currently accepted Red Cross procedures and principles to be followed in the event of an accident or sudden illness. Upon successful completion students will receive an Adult CPR/AED card, an Infant/Child CPR card and a Community First Aide and Safety card from the Red Cross. Fee is required. (4 contact hours)

**PEH-171—(3)**

**A Healthy Lifestyle and You**

This is a self-awareness course that provides the student with opportunities to acquire the knowledge and tools needed to make intelligent decisions to live a healthy life. (3 contact hours)

**PEH-172—(3)**

**Nutrition for Today**

This course examines nutrition theory in relation to health, wellness and disease prevention. It examines the science of nutrition including digestion and absorption of macro and micro nutrients. The course covers the relationship between nutrition, health, wellness and disease prevention. Students will study various methods of establishing good nutritious patterns. (3 contact hours)

**PEH-175—(2)**

**Teaching Group Fitness**

This course is designed for students who wish to integrate the study of group fitness methodologies, exercise science, and practical teaching experience. This course prepares students for national certification and potential fitness careers. Fee is required. (3 contact hours)

**PEH-181—(2)**

**Fundamentals of Rhythmical Movement**

Develops basic dance skills and techniques for primary and intermediate grade levels. Emphasizes teaching methods and organization. Fee is required. (2 contact hours)

**PEH-190—(3)**

**Outdoor Recreation and Nature Study**

Explore objectives, organization, techniques, counseling, and skills of outdoor recreation. Includes camping and survival skills, fishing and outdoor education activities. Fee is required. (3 contact hours)

**PHB—Phlebotomy**

**PHB-105—(1)**

**Phlebotomy for Health Care Providers**

*Prerequisite: 1 year of study in any of the following programs: Nursing, Radiologic Technology, Respiratory Therapy, or consent of the Phlebotomy Program Coordinator*

This course provides instruction in two skill areas, namely fundamentals of blood collection and venous access techniques. Students are awarded one credit hour upon successful completion of the lecture and laboratory components. This course does not lead to certification. IAIM: CLS 912

**PHB-110—(6)**

**Principles and Practice of Phlebotomy**

PHB-110 is a six-credit hour course which consists of lecture and laboratory components. Lecture topics addressed in this course include proper patient and specimen identification; medical terminology; anatomy and physiology appropriate to the practice of phlebotomy; communication skills, safety, infection control, blood collection equipment, and blood collection procedures, including venipuncture, skin puncture and arterial puncture; collection of certain body fluids, including urine, feces and sputum; specimen transport and storage requirements; quality assurance; and quality control. The laboratory component includes practice in the procedures discussed in the lecture component. Successful completion of PHB-110 as defined by program faculty is a prerequisite for PHB-112. (8 contact hours)

**PHB-111—(1)**

**Phlebotomy Clinical Practice Seminar**

*Prerequisite: PHB-110*

*Corequisite: PHB-112*

This course is designed as a capstone experience for students assigned to a phlebotomy clinical rotation. Discussion topics include student reaction to supervised clinical experiences, professional issues, communication skills appropriate for a diverse patient population, and application of customer service skills. Fee is required. (1 contact hour)

**PHB-112—(2)**

**Phlebotomy Clinical Practice**

*Prerequisite: PHB-110*

*Corequisite: PHB-111*

PHB-112 is a two-credit hour course consisting of 120 contact hours of supervised clinical practice of phlebotomy at one of the Moraine Valley Community College Phlebotomy Program's clinical affiliate sites. This course provides the student with additional phlebotomy practice in a clinical setting and is designed to develop blood specimen collection skills to a level consistent with entry into the profession. Clinical experiences will include experience collecting a variety of specimens from a variety of patient types. Fee is required. (8 contact hours)

**PHI—Philosophy**

**PHI-101—(3)**

**Introduction to Philosophy**

Introduces philosophical questions and philosophical ways of reasoning. Examines some key notions in the history of Western thought in areas of metaphysics, epistemology and ethics. (3 contact hours) IAI: H4 900

**PHI-110—(3)**

**Introduction to Formal Logic**

Introduces formal and symbolic logic, including syllogistic, propositional and predicate inference. (3 contact hours)

**PHI-111—(3)**

**Critical Thinking**

Introduces principles and methods for rational argument and effective problem solving. (3 contact hours) IAI: H4 906

**PHI-115—(3)**

**Approaches to Truth**

A survey of methods. Logical, intuitive, revelatory, scientific, and mystical approaches to truth and knowledge. (3 contact hours)

**PHI-120—(3)**

**World Religions**

Explores the principal doctrines (world view), typical behavior (lifestyle) and sphere of influence of Christianity, Islam, Judaism, Hinduism, Confucianism, Buddhism, and some tribal religions. Emphasizes comparison and examines themes such as view of God, condition of man, requirements for moral life, and relation to social and political forms. (3 contact hours) IAI: H5 904N

**PHI-125—(3)**

**Ethics**

This course will serve as an introduction to ethical philosophy and will include the study of several influential thinkers and various ethical theories. Key topics that will be discussed include social responsibility, moral standards and behaviors, natural law and ancient and modern theories of the moral life, as well as several contemporary moral issues. (3 contact hours) IAI: H4 904

**PHI-225—(3)**

**Bioethics**

Introduces problems in ethics surrounding developments in medicine and biological research. Introduces major ethical systems and encourages ethical methodology. This course is case-oriented. (3 contact hours)

**PHI-226—(3)**

**Business Ethics**

This case-oriented course introduces moral problems associated with industry and commerce. Introduces major ethical systems and encourages ethical methodology. Note: Only three credit hours can be earned for either BUS-226 or PHI-226. Duplicate credit in both courses is not awarded. (3 contact hours)

**PHS—Physical Science**

**PHS-101—(4)**

**Physical Science**

*Prerequisite: MTH-095 or 1 year of high school algebra*

Introduces chemistry, physics and astronomy for nonscience majors. Fee is required. (5 contact hours) IAI: P9 900L

**PHS-103—(4)**

**Descriptive Astronomy**

Studies structure, motions, origin, and evolution of the solar systems, stars, galaxies, and the universe. Requires some night observations. Fee is required. (5 contact hours) IAI: P1 906L

**PHS-105—(3)**

**Astronomy—Cosmos**

Explores astronomy and space exploration in the broadest human context. Embraces many sciences and cultures, and provides cosmic perspective for the planet Earth. Investigates diverse topics such as cosmic catastrophies, travel to the stars, cosmic influences on evolution, collisions of the continents, origin of life, contact with other civilizations, birth and death of stars and galaxies, future of the earth, and origin and fate of the universe. (3 contact hours)

## PHY—Physics

**PHY-106—(3)****Fundamentals of Physics**

*Prerequisite:* 1 year of high school algebra

An examination of physical principles and phenomena with applications in mechanics, properties of matter, heat, sound, electricity, magnetism, light, and quantum physics. The course does not assume that students have had high school physics and is intended for nonscience liberal arts and technical students. It will include large group mini-labs and demonstrations. PHY-106 taken concurrently with PHY-107, Fundamentals of Physics Lab, is also designed as an entry-level course for PHY-150, standard college physics. PHY-107 taken concurrently with PHY-106 will satisfy the physical science general education requirement. (4 contact hours) IAI: P1 900L

**PHY-107—(1)****Fundamentals of Physics Lab**

*Corequisite:* Registration or credit in PHY-106 or consent of instructor

A laboratory examination of physical principles and phenomena in mechanics, properties of matter, heat, sound, electricity, magnetism, light, and quantum physics. The course does not assume that students have had high school physics, and is intended for nonscience liberal arts and technical students. PHY-107 taken concurrently with PHY-106, Fundamentals of Physics, is also designed as an entry-level course for PHY-150, standard college physics. PHY-106 taken concurrently with PHY-107 will satisfy the physical science general education requirement. Fee is required. (2 contact hours) IAI: P1 900L

**PHY-110—(3)****Mechanical Universe I**

*Prerequisite:* MTH-095 or equivalent

This introductory course in physics covers mechanics, heat, waves, and forces using approximately 30 half-hour videotapes. Satisfies the science requirement for the nonscience major. PHY-111, Mechanical Universe I Lab, taken concurrently with PHY-110 will satisfy the physical science general education requirement. (3 contact hours) IAI: P1 900

**PHY-111—(1)****Mechanical Universe I Lab**

*Prerequisite:* MTH-095 or consent of instructor;

*Corequisite:* Registration in PHY-110 or consent of instructor

This transfer physics lab course is intended to be correlated with PHY-110 but may be taken separately. Covers scientific experiments and observations that enhance an understanding of mechanics, heat, waves, and forces. Home experiments and field trips may be substituted for regularly scheduled sessions in the physics lab. PHY-110, Mechanical Universe I, taken concurrently with PHY-111 will satisfy the physical science general education requirement. (2 contact hours) IAI: P1 900L

**PHY-112—(3)****Mechanical Universe II**

*Prerequisite:* MTH-095 or equivalent, and PHY-110 or consent of instructor

This introductory physics course covers light, electricity, magnetism, quantum theory, atomic structure, relativity, and nuclear energy. (3 contact hours)

**PHY-113—(1)****Mechanical Universe II Lab**

*Prerequisite:* MTH-095 or equivalent and PHY-111 or consent of instructor

*Corequisite:* Registration in PHY-112 or consent of instructor

An introductory laboratory in physics which covers scientific experiments and observations to enhance understanding of electricity, magnetism, waves, light, quantum theory, and nuclear energy developed in PHY-112. (2 contact hours)

**PHY-150—(4)****Mechanics, Heat and Sound**

*Prerequisite:* MTH-101 or 2 years of high school algebra

This general college physics course for liberal arts or science majors covers motion, momentum, work, power, energy, fields, heat, and forces. Fee is required. (6 contact hours) IAI: P1 900L

**PHY-151—(4)****Electricity, Magnetism and Light**

*Prerequisite:* PHY-150

DC circuits, radiation, relativity, nuclear and elementary particles, and quantum theory are examined. Fee is required. (6 contact hours)

**PHY-203—(4)****Mechanics**

*Prerequisite:* MTH-150

Introduces physics with calculus for science, engineering and math majors. Explores simple equations of motion, vectors, forces in equilibrium, and the laws of dynamics. Applications including linear, rotational and harmonic motions. Introduces hydrostatics and hydrodynamics. One year of high school physics is strongly recommended. Fee is required. (6 contact hours) IAI: P2900L; IAIM: BIO 903, EGR 911, MTH 921

**PHY-204—(4)****Heat, Electricity and Magnetism**

*Prerequisite:* PHY-203

Second in the introductory physics sequence for science, engineering and math majors, thermal properties of matter and thermodynamics are covered. Electric and magnetic fields; electric and magnetic properties of matter; the laws of electricity and magnetism; AC, DC and transient currents; and electromagnetic oscillations are studied. Fee is required. (6 contact hours) IAIM: BIO 904, EGR 912

**PHY-205—(4)**

**Waves and Modern Physics**

*Prerequisite: PHY-204*

Third in the introductory physics sequence for science, engineering and math majors, properties and equations of waves applied to sound and light are examined. Covers relativistic mechanics, and basic atomic and nuclear structure. Emphasizes quantum nature of applicable laws. Fee is required. (6 contact hours) IAIM: EGR 914

**PSC—Political Science**

**PSC-103—(3)**

**Introduction to Political Science**

Introduces the principles of politics and government. Explores the role of U.S. citizens in the political process. Ideologies, the role of the media in politics, political development, and analysis of politics will be discussed. (3 contact hours) IAI: S5 903

**PSC-110—(3)**

**American National Government**

Explores basic principles of the Constitution, and structure and functions of the federal government. Includes Congress, presidency and judiciary. The roles of political parties, pressure groups and public opinion in American politics are examined. (3 contact hours) IAI: S5 900; IAIM: PLS 911

**PSC-115—(3)**

**State and Local Government**

Study basic principles of state constitutions. Structure and function of state legislatures, courts and chief executives; structure and functions of city, county and other local governments; and the role of political parties, pressure groups and public opinion are covered. (3 contact hours) IAI: S5 902; IAIM: PLS 915

**PSC-210—(3)**

**International Relations**

Introduces international relations, foreign policies, international organizations, conflict, and accommodation in the international system. (3 contact hours) IAI: S5 904N; IAIM: PLS 912

**PSC-212—(3)**

**Latin American Politics**

Caribbean and Central and South American nations' historical development and current social, economic and political problems with focus on governments, politics and policies are included. (3 contact hours)

**PSC-215—(3)**

**Comparative Government**

Introduces comparative governments and institutions in major European democracies, Communist systems and the Third World. (3 contact hours) IAI: S5 905; IAIM: PLS 914

**PSC-225—(3)**

**Non-Western Comparative Politics**

Examine and compare government and politics in Asia, Africa, the Middle East, and Latin America within region-specific historical, social, and economic contexts and the global environment. (3 contact hours) IAI: S5 906N

**PSG—Polysomnography**

**PSG-105—(3)**

**Polysomnography Patient Care I**

*Prerequisite: Admission into the Polysomnography program*

*Corequisite: PSG-110*

Introduces students to the hospital/sleep disorders center environment. Provides instruction in the areas of assessment of vital signs, proper body mechanics and patient assistance. Discusses electrical safety, standard precautions, general asepsis and infection control procedures, professional and ethical behavior, diversity, patient confidentiality, interviewing techniques, and documentation procedures. Provides demonstration of patient preparation for polysomnography hook-up, with introduction to electrode placement. (4 contact hours)

**PSG-110—(3)**

**Cardiopulmonary Physiology**

*Prerequisite: Admission into the Polysomnography program*

*Corequisite: PSG-105*

Provides the foundations for clinical practice in respiratory care or polysomnography. Describes the respiratory system with emphasis on ventilation and respiration during wakefulness, sleep, and in disease. Discusses basic cardiovascular anatomy and physiology in health and disease. Indications, hazards, and benefits of oxygen therapy, non-invasive ventilation, and positive airway pressure for breathing-related sleep disorders will be presented. (3 contact hours)

**PSG-115—(4)**

**Polysomnography Patient Care II**

*Prerequisite: Current health care provider; CPR certification, completed student history and physical; PSG-105, PSG-110*

*Corequisite: Registration in PSG-120*

Introduces the current practice of polysomnography. Provides instruction in the use of specialized instruments used to record and measure various physiological parameters involved with sleep testing. Describes sleep disorders, theory of testing and treatment procedures, and analysis of polysomnography data. In general, provides the cognitive skills required for students to perform polysomnography in a clinical setting. (4 contact hours)

**PSG-120—(4)**

**Polysomnography Clinical Application**

*Prerequisite:* Current health care provider; CPR certification; completed student history and physical, and PSG-105, PSG-110 or consent of instructor

*Corequisite:* Registration in PSG-115

Provides laboratory and sleep disorders center experience in polysomnography, correlating principles taught in PSG-115. Provides hands-on instruction in use of specialized instruments to measure and record physiological parameters during a sleep study. Experience includes online monitoring and analysis of PSG recordings, and patient interaction. Examines recognition of and appropriate response to critical events that can occur in sleep. Fee is required. (10 contact hours)

**PSR—Psychiatric Rehabilitation**

**PSR-120—(3)**

**Survey of Psychiatric Rehabilitation**

*Corequisite:* Registration or credit in PSR-220

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. This survey course has four major themes: understanding psychiatric disability and current approaches to treatment, the mental health system and surrounding legal issues, psychiatric rehabilitation through vocational and skills training, and 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. (3 contact hours)

**PSR-125—(3)**

**Psychiatric Rehabilitation Skills**

*Prerequisite:* PSR-120

*Corequisite:* Registration or credit in PSR-225

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. (3 contact hours)

**PSR-130—(3)**

**Health Skills for Psychiatric Rehabilitation**

*Prerequisite:* PSR-120

*Corequisite:* Registration or credit in PSR-230

This 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 skill 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 (3 contact hours)

**PSR-135—(3)**

**Vocational and Community Living Skills**

*Prerequisite:* PSR-120

*Corequisite:* Registration or credit in PSR-235

This course is the fourth in a 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. This course examines 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. (3 contact hours)

**PSR-220—(1)**

**Psychiatric Rehabilitation Internship I**

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 also is required. (5 contact hours)

**PSR-225—(1)**

**Psychiatric Rehabilitation Internship II**

*Prerequisite: PSR-120 and PSR-220*

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 individual supervision with on-site clinical staff and/or supervision by field placement director also is required. 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 also is required. (5 contact hours)

**PSR-230—(1)**

**Psychiatric Rehabilitation Internship III**

*Prerequisite: PSR-120, PSR-125, PSR-220, PSR-225*

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 also is required. (5 contact hours)

**PSR-235—(1)**

**Psychiatric Rehabilitation Internship IV**

*Prerequisite: PSR-120, PSR-125, PSR-130, PSR-220, PSR-225, PSR-230*

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 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 also is required. (5 contact hours)

**PSY-100—(2)**

**Human Potentials**

*Corequisite: Registration or credit in COM-101*

Become aware of your potential through discussion of achievements, strengths, values, and goals. Group participation is included. (2 contact hours)

**PSY-101—(3)**

**Introduction to Psychology**

This course covers psychological theories and scientific methods used in the study of behavior of man and animals. Study sensation and perception, motivation, emotions, learning, personality, and social interaction. (3 contact hours) IAI: S6 900; IAIM: SPE 912

**PSY-104—(3)**

**Life-Span Developmental Psychology**

Study the neurological, physical, cognitive, social, and emotional development of humans from conception through childhood, adolescence, adulthood, and old age. Emphasizes normal development stages and patterns of adjustment to differing lifetime demands. The theories and principles of human development are examined in light of contemporary research. (3 contact hours) IAI: S6 902; IAIM: EED 903, SED 903, SPE 913

**PSY-105—(3)**

**Child Psychology**

This course concerns the study of human development from conception through adolescence. Includes research methods and developmental theories. Addresses all the major areas of development (physical, social, emotional and cognitive) and the interaction among these areas. (3 contact hours) IAI: S6 903; IAIM: ECE 912, EDU 902

**PSY-106—(3)**

**Adolescent Psychology**

Study adolescent development with emphasis on biological, cognitive, interpersonal, and psychological tasks within socially and culturally defined contexts such as the family, peer group, work, and school. Psychological, cultural and historical perspectives are examined within the framework of current research. (3 contact hours) IAI: S6 904

**PSY-110—(1)**

**Group Dynamics**

Study theory and experience in the functioning of groups. Small-group leadership, group-work theory, group formation, group process, group roles, communication, group cooperation, and individual functioning within a group are covered. (2 contact hours)

**PSY-111—(2)**

**Career Planning**

Examines theories and principles of career planning. Explores types of careers and jobs. Covers how to form an effective decision-making strategy in choosing a career and how to be successful in a career. (2 contact hours)

**PSY-201—(3)**

**Human Relations in Organizations**

Learn principles and techniques of psychology applied to activities and problems in business and industry. Emphasizes interpersonal and intergroup relationships for employee morale and motivation. (3 contact hours)

**PSY—Psychology**

**PSY-202—(3)**

**Social Psychology**

*Prerequisite: PSY-101*

Study basic psychological determinants of behavior in interpersonal relations and their influence on social interaction, attitudes, values, and social events. Investigates influence of culture on the development of the personality. (3 contact hours)

IAI: S8 900; IAIM: PSY 908

**PSY-205—(3)**

**Abnormal Psychology**

*Prerequisite: PSY-101 or PSY-105*

This course explores cause, description and treatment of psychological disorders. Emphasis is on various forms of neuroses, psychoses, personality disorders, psychosomatic reactions, and organic brain syndrome. (3 contact hours) IAIM: PSY 905

**PSY-210—(3)**

**Adult Psychology**

*Prerequisite: PSY-101 or PSY-105*

Examines the development of the normal adult from young adulthood through old age. Concludes with topics of death and dying. Includes changes in biological, cognitive, social and personality characteristics, work and leisure, relationships, and family. (3 contact hours) IAI: S6 905; IAIM: PSY 903

**PSY-211—(3)**

**Human Sexuality**

Studies psychological aspects of sexuality. Includes physiological development and functioning, gender identity and sex roles, sociocultural influences, and values in decision making. Covers roles of motivation, emotion and communication in sexual behavior and relationships. (3 contact hours) IAIM: SW 912

**PSY-215—(3)**

**Educational Psychology**

*Prerequisite: PSY-101, PSY-105 or PSY-104*

This course concerns psychological principles underlying educational practice. Theories concerning cognitive and psychological development, human learning, and motivation are studied with emphasis on application for instruction, including assessment. Emphasis will also be placed on learner-centered instruction and diversity. (3 contact hours) IAIM: SED 902

**PSY-220—(3)**

**Psychology of Women**

Psychological approach to the study of women. Includes female psychobiology, sex-role acquisition, personality theories, socialization processes, and contemporary psychological issues. (3 contact hours)

**RAD—Radiologic Technology**

**RAD-127—(1)**

**Introduction to Radiologic Technology**

*Prerequisite: Admission to the program or consent of instructor*

Introduces discovery and early history of X-rays and their use in medicine. Covers health care delivery system, medical ethics, and professional societies and organizations for radiologic technologists. Accreditation, certification, licensure, and their impact on socioeconomics are explored. (1 contact hour)

**RAD-129—(1)**

**Radiation Protection**

*Prerequisite: RAD-130;*

*Corequisite: Registration in RAD-132, RAD-138*

Introduces radiation protection, methods of protection for patient and technologist, permissible dosage and calculation for the technologist, and safe operation of X-ray equipment. (1 contact hour)

**RAD-130—(3)**

**Principles of Radiographic Exposure**

*Prerequisite: Admission to the program, BIO-115 and MRT-110 or consent of instructor*

*Corequisite: Registration in RAD-127, RAD-131, RAD-136*

Learn theory of X-ray exposure to obtain proper diagnostic information. Performance of laboratory experiments using student X-ray training units is included. Fee is required. (4 contact hours)

**RAD-131—(3)**

**Principles of Radiographic Positioning I**

*Prerequisite: Admission to program, BIO-115 and MRT-110 or consent of instructor*

*Corequisite: Registration in RAD-127, RAD-130, RAD-136*

Covers proper positions for radiographs of the osseous system and evaluation of radiographs. Technique, positioning and anatomical appearance on radiographs are emphasized. Students will perform radiographic positioning. Fee is required. (4 contact hours)

**RAD-132—(3)**

**Principles of Radiographic Positioning II**

*Prerequisite: RAD-131*

*Corequisite: Registration or credit in RAD-129 and RAD-138*

Learn proper position for radiographs of the skull, and respiratory, urinary and alimentary systems. Evaluate radiographs. Technique, positioning and anatomical appearance on the radiograph are covered. Fee is required. (4 contact hours)

**RAD-133—(2)**

**Principles of Radiologic Technology**

*Prerequisite: RAD-130, RAD-131, RAD-132*

*Corequisite: Registration in RAD-139, RAD-140, RAD-141*

Lectures in topography and radiological landmarks are included. Radiographs are evaluated. Technique, positioning and anatomical appearance on the radiograph are studied. (2 contact hours)

**RAD-136—(2)**

**Clinical Education I**

*Prerequisite:* Admission to program, BIO-115 and MRT-110 or consent of instructor

*Corequisite:* Registration in RAD-127, RAD-130, RAD-131

Gain hospital experience in radiographic rooms correlating principles taught in RAD-130 and RAD-131. Introduces the radiology department and initiating phases of patient rapport. Requires working with patients and using X-ray equipment. Fee is required. (16 contact hours)

**RAD-138—(2)**

**Clinical Education II**

*Prerequisite:* RAD-136

*Corequisite:* Registration or credit in RAD-129 and RAD-132

Correlate and implement principles of radiographic technique and positioning previously taught in RAD-130, RAD-131 and the corequisites of this course. Requires working with patients and using X-ray equipment. Fee is required. (16 contact hours)

**RAD-139—(2)**

**Clinical Education III**

*Prerequisite:* RAD-138

*Corequisite:* Registration in RAD-133, RAD-140, RAD-141

Gain experience in hospital radiographic rooms correlating and implementing principles and procedures taught in the first year of the program. Requires working with patients and using X-ray equipment. Fee is required. (24 contact hours)

**RAD-140—(1)**

**Radiographic Processing**

*Prerequisite:* RAD-131, RAD-132

*Corequisite:* Registration in RAD-133, RAD-139, RAD-141

Covers principles of radiographic processing. Includes automatic and manual systems, and understanding of darkroom chemistry. Basic principles of processor quality control and sensitometry are examined. Fee is required. (1 contact hour)

**RAD-141—(1)**

**Pediatric Radiography**

*Prerequisite:* RAD-131, RAD-132

*Corequisite:* Registration in RAD-133, RAD-139, RAD-140

Gives an overview of the psychological and physiological considerations in pediatric radiography. Specific procedures and the radiation protection considerations of pediatric radiography are explored. (1 contact hour)

**RAD-240—(4)**

**Radiologic Physics**

*Prerequisite:* Second-year classification in Radiologic Technology program

*Corequisite:* Registration in RAD-241, RAD-245

Extends knowledge of X-ray machines to facilitate proper radiographic exposure techniques. Explores fundamentals of atomic structure, electricity and magnetism. Detailed study of X-rays, X-ray circuit, and interaction of radiation and matter are covered. Includes principles of protection from radiation. Fee is required. (5 contact hours)

**RAD-241—(3)**

**Advanced Radiologic Technology I**

*Prerequisite:* Second-year classification in Radiologic Technology program

*Corequisite:* Registration in RAD-240, RAD-245

Includes proper positions and techniques for radiographs of vascular and nervous systems. Discusses other imaging procedures such as thermography, xeroradiography, ultrasonography, and computerized axial tomography. Nursing procedures, including sterile and aseptic techniques, are covered. (3 contact hours)

**RAD-243—(1)**

**Application of Radiology to Pathology**

*Prerequisite:* Second-year classification in Radiologic Technology program

*Corequisite:* Registration in RAD-244, RAD-246, RAD-248, RAD-250

Examines surgical and medical diseases. Discusses pathology and relates its effect on radiological procedure. (1 contact hour)

**RAD-244—(2)**

**Radiobiology**

*Prerequisite:* Second-year classification in Radiologic Technology program

*Corequisite:* Registration in RAD-243, RAD-246, RAD-248 and RAD-250

Studies effects of ionizing radiation in biological systems. Includes radiation units, interactions of radiation and matter, response to irradiation, radiation syndromes, and somatic and genetic effects. Fee is required. (2 contact hours)

**RAD-245—(2)**

**Advanced Clinical Education I**

*Prerequisite:* Second-year classification in Radiologic Technology program

*Corequisite:* Registration in RAD-240, RAD-241

Gain experience in radiographic rooms. Includes further development of skills learned in RAD-136, RAD-138, RAD-139, and correlation of principles taught in corequisite RAD-241. Requires working with patients and using sophisticated electronic equipment. Fee is required. (24 contact hours)

**RAD-246—(2)**

**Advanced Clinical Education II**

*Prerequisite:* RAD-245

*Corequisite:* Registration in RAD-243, RAD-244, RAD-248 and RAD-250

Continues development of skills learned in previous clinical assignments. Application of principles learned in RAD-244 and RAD-250. Requires working with patients and using sophisticated equipment. Fee is required. (24 contact hours)

**RAD-247—(2)**

**Advanced Clinical Education III**

*Prerequisite:* RAD-246

Gain experience in all areas of radiology. Develop skills acquired in previous clinical education courses. Prepare for employment upon graduation. Fee is required. (34 contact hours)

**RAD-248—(1)**

**Departmental Administration**

*Corequisite: Registration or credit in RAD-246*

Administration and personnel management in a radiologic department are studied. (1 contact hour)

**RAD-250—(3)**

**Radiographic Equipment and Imaging Modalities**

*Prerequisite: Second-year classification in Radiologic Technology program*

*Corequisite: Registration in RAD-243, RAD-244, RAD-246 and RAD-248*

Study functions in application of radiographic equipment and imaging modalities, quality control equipment and techniques. Includes radiation detection equipment and an overview of imaging modalities not using ionizing radiation. Fee is required. (4 contact hours)

**RDG—Reading**

**RDG-041—(4)**

**Approaches to College Reading**

*Prerequisite: Appropriate score on placement test*

Designed to give the student a solid foundation in the basics of college reading. Primary focus will be on appropriate thinking, reading and writing strategies essential for improving comprehension. Credit hours for this course can be applied to full- or part-time student status, but will not count toward graduation credits unless specified in your certificate or degree program. (4 contact hours)

*This course may be taken four times for credit.*

**RDG-071—(3)**

**Techniques for Textbook Reading**

*Prerequisite: Grade of "C" or better in RDG 041 or appropriate score on placement test*

Development of thinking, reading and writing techniques necessary for comprehension of college textbooks. Emphasizes planning, organizing, integrating, and evaluating reading strategies. Credit hours for this course can be applied to full- or part-time student status, but will not count toward graduation credits unless specified in your certificate or degree program. (3 contact hours)

*This course may be taken four times for credit.*

**RDG-091—(3)**

**Critical Reading**

*Prerequisite: Grade of "C" or better in RDG 071 or appropriate score on placement test*

Refines and expands the critical, higher order thinking strategies necessary for the interpretation and evaluation of reading content. Credit hours for this course can be applied to full- or part-time student status, but will not count toward graduation credits unless specified in your certificate or degree program. (3 contact hours)

*This course may be taken four times for credit.*

**REC—Recreation Management**

**REC-101—(3)**

**Recreation and Wellness Professions**

This course reviews the history, development and community utilization of recreation and wellness professions. Structures, purposes, and interrelationships of these professions are covered. Trends and career opportunities in recreation and wellness professions are explored. The content is delivered through lecture, group discussion, self-assessment, portfolio, academic master plan, and career search project. (3 contact hours)

**REC-102—(3)**

**Older Adult Recreation and Wellness**

This course will focus on theoretical and practical issues encountered in serving the specific population of older adults in a variety of recreation and health fitness settings. Topics addressed include attitudes and prejudices toward aging, societal norms related to aging, physical differences in normal and abnormal aging, aging and mental health issues, the dynamics of dementia, and issues related to death and dying. (3 contact hours)

**REC-120—(3)**

**Recreation Programming**

Introduces the student to the role of the recreation leader and programmer. Emphasizes responsibilities, skills and resources necessary to planning successful recreation and leisure programs. Fee is required. (4 contact hours)

**REC-124—(3)**

**Facility Management**

Study the philosophies, principles, methods, techniques, and skills needed to effectively operate and maintain leisure areas and facilities. (3 contact hours)

**REC-180—(3)**

**Perceptual Motor Development**

Participation in a variety of K-6 physical education activities are included. Teaching methods are stressed, with emphasis on perceptual motor development for early childhood students. Fee is required. (4 contact hours)

**REC-182—(3)**

**Recreation for Special Populations**

This methods class introduces the skills, knowledge and competencies necessary for planning, organizing, conducting, and evaluating recreational programs for special populations. Includes hands-on experience teaching various disability groups. (4 contact hours)

**REC-201—(3)**

**Applied Leadership Essentials**

This course explores the universal principles of leadership and is designed to give the student an understanding of the leadership tasks in modern organizations. Major authors and their theories are examined. Diverse leadership styles, motivational techniques and their impact on organizations are reviewed, with specific application to recreation and wellness professions. (3 contact hours)

**REC-205—(2)**

**Professional Issues**

Covers critical trends and issues, the role of the leisure professional in the contemporary setting, funding ethics, and legal responsibilities. (2 contact hours)

**REC-233—(3)**

**Recreation Management Practicum**

*Prerequisite: Consent of practicum coordinator*

*Corequisite: Registration in REC-237*

Includes supervised practical exposure and involvement in the recreation management field. (15 contact hours)

**REC-237—(1)**

**Recreation Management Seminar**

*Corequisite: Registration or credit in REC-233*

Includes discussion of supervised field service experience in recreation management practicum. (1 contact hour)

**RES—Respiratory Therapy**

**RES-137—(1)**

**Microorganisms and Disease Prevention**

This orientation to medical microbiology introduces organisms according to type, biological classifications, distribution activity, and classifications. Includes morphology and basic physiology of bacterial cells, bacterial growth requirements, cell reproduction, common pathogenic organisms, diseases they cause, and culturing techniques. (1 contact hour)

**RES-141—(7)**

**Respiratory Therapy Procedures I**

Includes basic theory and procedures of respiratory therapy. Orientation to equipment is given. Emphasizes anatomy and physiology of respiratory and cardiovascular systems. Basic science of equipment operation and procedures such as oxygen administration, IPPB and resuscitation are examined. Fee is required. (9 contact hours)

**RES-142—(7)**

**Respiratory Therapy Procedures II**

*Prerequisite: RES-141*

*Corequisite: Registration or credit in RES-154*

Presents acid-base balance, cardiopulmonary diseases, pulmonary functions, and pharmacology. Discusses and demonstrates intubation, chest physiotherapy and sterilization. Fee is required. (9 contact hours)

**RES-145—(2)**

**Respiratory Therapy Patient Care**

*Corequisite: Registration or credit in RES-141*

This introductory lecture hospital course provides clinical skills necessary to function in the hospital environment. Emphasizes assessment, patient therapy modalities and evaluation skills and techniques. (3.5 contact hours)

**RES-154—(2)**

**Clinical Practice I**

*Prerequisite: RES-141*

*Corequisite: Registration or credit in RES-142*

Emphasizes application of oxygen, aerosol, IPPB, pulmonary functions, and cardiopulmonary resuscitation. Beneficial effects of therapy, monitoring and diagnostic techniques are included. Fee is required. (8 contact hours)

**RES-157—(6)**

**Clinical Practice II**

*Prerequisite: RES-145, RES-154*

*Corequisite: Registration in RES-158*

Emphasizes development of new skills involving nasotracheal suctioning, chest physiotherapy, intubation and extubation assist, and maintenance and sterilization of equipment. Refines skills learned in RES-154. Fee is required. 10 weeks (32 contact hours)

**RES-158—(2)**

**Advanced Physiology and Clinical Applications**

*Prerequisite: RES-142*

*Corequisite: Registration or credit in RES-157*

Study respiration and metabolism, breathing mechanics, pulmonary circulation, diffusion, and blood gas transport. Ventilation-perfusion relationships, pH equilibrium, pulmonary function, and neurogenesis of respiration are covered. Fee is required. 10 weeks (4 contact hours)

**RES-200—(1)**

**EKG Application and Theory**

*Prerequisite: Current enrollment in or graduation from a health career program accredited by a college, recognized agency or sponsor*

This course is designed to provide the health care professional with a basic understanding of electrocardiography theory and application. (1.5 contact hours)

**RES-250—(4)**

**Clinical Practice III**

*Prerequisite: RES-145, RES-157*

*Corequisite: Registration in RES-254*

Emphasizes intensive care and critical care medicine. Covers pediatric respiratory care and pulmonary function in a hospital environment. Fee is required. (20 contact hours)

**RES-251—(4)**

**Clinical Practice IV**

*Prerequisite: RES-250 and RES-254*

*Corequisite: Registration or credit in RES-255*

Gain comprehensive exposure to emergency care, critical care maintenance and other applicable clinical procedures. Includes increased direct responsibility and physician contact, patient care plans, and evaluation of therapeutic modalities. Fee is required. (20 contact hours)

**RES-254—(3)**

**Respiratory Therapy Procedures III**

*Prerequisite:* RES-157, RES-158

*Corequisite:* Registration in RES-250

Cardiopulmonary anatomy; physiology and mechanisms; gas transport mechanisms; effect of altitude, exercise and artificial atmospheres on function; pediatric considerations; applications of pulmonary function testing; and manifestations of pulmonary and cardiopulmonary disease are studied. Fee is required. (3 contact hours)

**RES-255—(3)**

**Respiratory Therapy Procedures IV**

*Prerequisite:* RES-250, RES-254

*Corequisite:* Registration in RES-251

Presents clinical, radiologic and laboratory assessment of the patient. Explore management of ventilatory respiratory failure and airway obstruction. Assess etiology, diagnosis, pathology, symptoms, and treatment of various pulmonary and related disease entities. Fee is required. (3 contact hours)

**RTM—Restaurant/Hotel Management and Culinary**

**RTM-100—(2)**

**Food Service Sanitation**

Studies the causes and prevention of food-borne illness. Stresses food service worker's responsibilities in protecting the public health. Course meets the educational requirements for the Illinois Department of Public Health (IDPH) and the Educational Foundation of the National Restaurant Association (formerly NIFI) Certification. (2 contact hours)

**RTM-101—(3)**

**Introduction to Hospitality Industry**

Introduces the history, organization, systems, problems, and career opportunities in the hospitality industry, including customer and personnel relations, current laws and trends, basic cost control techniques, and food management. Reviews the organization of hotel, and food and beverage operations. (3 contact hours)

**RTM-102—(4)**

**Quantity Food Production I**

*Corequisite:* Registration or credit in RTM-100

Introduces basic skills and knowledge to develop a strong foundation within culinary arts management. Examines guidelines used in operations management, including quality control, food handling, preparation, and production. The American Culinary Federation guidelines have been used for this course. This course is a part of the National Restaurant Association's Educational Foundation Management Diploma Program. Fee is required. (7 contact hours)

**RTM-202—(4)**

**Quantity Food Production II**

*Prerequisite:* RTM-102

Designed for students who have proficiency in all basic skills and knowledge of culinary arts management. Emphasizes intermediate methods and techniques of culinary arts, with a concentration on regional American cuisine, meat and seafood cookery and fabrication, and the food production system. The American Culinary Federation guidelines have been used for this course. This course is a part of the National Restaurant Association's Educational Foundation Management Diploma Program. Fee is required. (7 contact hours)

**RTM-203—(4)**

**Garde Manger**

*Prerequisite:* RTM-202 or consent of instructor

Master the skills of garde manger, which is the artistic presentation of food. Learn the concepts of garde manger and buffet management in both a classroom and laboratory environment. Through participation in hands-on laboratory experiences, students study professional plate presentations, displays and show pieces. The American Culinary Federation guidelines have been used as a standard for this course. Fee is required. (7 contact hours)

**RTM-204—(4)**

**Quantity Food Production III**

*Prerequisite:* RTM-102

This course is recommended for students who have attained an intermediate level of skill and knowledge in culinary arts management. Advanced methods and techniques will be taught with an emphasis on international cuisine. Examine various cultures and their traditional food habits to develop a better understanding of the many cultures in America, and how these cultures and cuisines have influenced American cuisine and the hospitality industry today. Fee is required. (7 contact hours)

**RTM-205—(3)**

**Beverage Management**

An introduction to the principles of beverage management. Non-alcoholic beverages as well as wine, spirits and beers are studied. (4 contact hours)

**RTM-206—(3)**

**Menu Writing and Marketing**

Introduces menu writing and developing marketing strategies for hotels, restaurants, clubs, and resorts. (3 contact hours)

**RTM-207—(3)**

**Food, Beverage and Equipment Purchasing**

*Prerequisite:* MTH-090 or appropriate score on math placement test

Introduces food, beverage and equipment purchasing for a hotel or restaurant. (3 contact hours)

**RTM-208—(3)**

**Design and Maintenance of Food Service Facilities**

Principles of layout, design and maintenance for a hotel, restaurant or commercial kitchen are examined. (3 contact hours)

**RTM-209—(4)**

**Baking/Pastry I**

*Corequisite: Registration or credit in RTM-100*

Develop skills and knowledge essential in baking. Includes basic principles in the baking process, and ingredient standards and usage. Covers techniques in mixing and preparation of professional finished products. Studies yeast dough products such as bread and rolls, sweet yeast dough products, quick breads and batters, as well as pies and tarts. The American Culinary Federation guidelines have been used for this course. Fee is required. (7 contact hours)

**RTM-210—(3)**

**Nutrition for Food Service Managers**

Details the fundamentals of nutrients, their sources and their functions, the U.S. recommended dietary allowances (RDA), and the U.S. dietary guidelines are presented in detail, as well as menus that comply with them. Special diets required during pregnancy, adolescence and adulthood, as well as for athletes and vegetarians, are presented. Prepares food service managers to accommodate the consumer's increasing awareness of nutrition. (3 contact hours)

**RTM-211—(4)**

**Baking/Pastry II**

*Prerequisite: RTM-209 or consent of instructor*

The mastery of skills and knowledge in advanced baking and pastries. Includes specialty breads, pastries, classic desserts, marzipan, chocolate work, cocoa printing, advanced decorating techniques, and showpieces. The American Culinary Federation guidelines have been used for this course. Fee is required. (7 contact hours)

**RTM-220—(3)**

**Concepts of Hospitality Cost Control**

*Prerequisite: MTH-090 or appropriate score on math placement test*

Explores how to maximize hospitality profitability by controlling costs. Cost-control techniques and procedures in food, beverage and hotel operations are covered. Standard hospitality accounting practices, financial statements, budgets, and financial planning are covered. (3 contact hours)

**RTM-222—(3)**

**Supervisory Housekeeping**

Overviews the fundamentals of housekeeping management. Describes the management functions, tools and practices required in today's lodging and institutional housekeeping departments. (3 contact hours)

**RTM-223—(3)**

**Convention Management and Service**

Defines the scope and various segments of the convention market, explains what is required to meet individual needs, and explores methods and techniques that lead to better service. (3 contact hours)

**RTM-225—(3)**

**Banquet and Specialty Services**

An orientation to the field of catering, this course includes all of the activities associated with the sales, organization, food preparation, and service of catered functions, banquets and other specialty functions, including hotel room service. (3 contact hours)

**RTM-227—(3)**

**Front Office Procedures**

Presents a systematic approach to front office procedures by detailing the flow of business through a hotel, beginning with the reservation process and ending with check-out and settlement. Examines the various elements of effective front office management, paying particular attention to planning and evaluating front office operations and to personnel management. Front office procedures and management are placed within the context of the overall operation of a hotel. (3 contact hours)

**RTM-230—(1)**

**Hospitality Portfolio**

*Prerequisite: consent of instructor*

A 'portfolio' approach to the internship/field experience component required in all professions, this course is based on the work-based skills outlined in the Secretary Commission on Acquiring Necessary Skills (SCANS) report and the National Skill Standards Board of the Department of Labor. Students lacking work-based skills will have planned and supervised occupational work experience and visits to multiple work sites in the community. Visits are organized to include those of several management levels in a variety of businesses. Visits may be brief tours or a several-day assignment to "job shadow" a manager or work as a cook, server, front desk agent, etc. Students should meet with the program coordinator immediately upon enrolling in the Restaurant/ Hotel Management Program to plan their portfolio work.

**RTM-231—(3)**

**Hospitality Supervision**

*Corequisite: Registration or credit in RTM-101*

Prepares the student for the transition from employee to supervisor, including how to handle difficult employees, implement motivational techniques and conduct performance evaluations. (3 contact hours)

**RTM-233—(3)**

**Hospitality Internship**

*Prerequisite: Consent of instructor*

Provides planned and supervised occupational field experience as it relates to the student's occupational program. Student will work at least 15 hours a week over a two-semester period. (15 contact hours)

**SSC—Social Science**

**SSC-100—(3)**

**Contemporary Society**

Analyze fundamental social concepts relevant to modern society. Emphasis is on emerging problems. (3 contact hours)

**SSC-101—(3)**

**Social Science I**

This interdisciplinary approach covers current, crucial issues in the social sciences using anthropology, economics, history, political science, and sociology. (3 contact hours) IAI: S9 900

**SSC-102—(3)**

**Social Science II**

Selected internal political, economic and social problems of foreign nations from anthropology, economics, history, political science, and sociology perspectives are examined. (3 contact hours)

**SSC-299—(3)**

**Topics in Social Science**

Major issues currently facing the United States and other nations of the world are explored. Considers socioeconomic, political and other perspectives related to these global topics. (3 contact hours)

**SLP—Private Protective Services**

**SLP-100—(1)**

**Unarmed Security Guard Training**

Intensive instruction in the technical aspects of private security employment. Emphasis is on legal rules, security techniques and processes, life safety, and public relations. Successful completion satisfies the 20-hour basic training requirement for unarmed private security certification under Illinois revised statutes. (1 contact hour)

**SLP-101—(3)**

**Introduction to Security**

Covers the historical, philosophical and legal basis for security. Includes the role of security in society; the concept of professionalism; and the administrative, personnel and physical aspects of the field. (3 contact hours)

**SLP-103—(1)**

**Armed Security Guard Training**

*Prerequisite: SLP-100*

This course provides basic instruction in the use and handling of firearms related to private security employment. Emphasis is placed on legal issues, safety rules, and supervised practice on the range. Successful completion of this course and SLP-100 satisfies the 40-hour firearms training requirement for armed private security certification under Chapter 111, Paragraph 2678 – Illinois Revised Statutes. Fee is required. (1.5 contact hours)

**SLP-104—(2)**

**Firearms I**

Presents the physical, legal and moral hazards associated with the misuse of firearms. Emphasizes general and specific safety rules for handling weapons. Includes supervised practice to develop the student's ability to use firearms effectively and safely. Successful completion satisfies the 40-hour mandatory firearms training course for peace officers. Fee is required. (2.5 contact hours)

**SLP-106—(3)**

**Crisis Management**

Emphasizes interpersonal skills in protective services conflict situations. Includes interpersonal communications, and understanding and handling crisis intervention situations. Reviews job stress management. (3 contact hours)

**SLP-107—(3)**

**Security Procedures**

Explores basic security methods and techniques used to carry out prevention, protection, enforcement, inspection, detection, investigation, emergency service, deterrence, reporting, and general services functions. Emphasis is placed on the specific role each function has in maintaining a desired level of security. (3 contact hours)

**SLP-108—(3)**

**Applied Security Operations**

Examines methods, techniques and means necessary to maintain a security operations environment. Emphasis is on physical, information and personnel security. Includes computer security. (3 contact hours)

**SLP-109—(1)**

**Private Alarm Training**

This course provides basic instruction in private alarm fundamentals. Emphasis is on basic electronics, equipment and wiring requirements, video detection and alarm systems, fire detection and alarm systems, specialty systems, perimeter detection, and motion detection systems. Successful completion satisfies the 20-hour basic training requirement for private alarm contractor agency employees under the Illinois Private Detective and Private Security Act. (1 contact hour)

**SLP-114—(3)**

**Hospital Security**

Techniques and specialized procedures for effective security in a hospital setting are examined. (3 contact hours)

**SLP-201—(3)**

**Specialized Security Problems**

Studies the application of protective services principles to specific problems. Emphasis is on loss prevention management techniques. Includes crime prevention, disaster and emergency planning, and protection of executives. (3 contact hours)

**SLP-206—(3)**

**Security and the Law**

Provides instruction in the laws and regulations which govern the conduct of private security. Includes administrative law, constitutional law, contract law, criminal law, liability claims, tort law, and related statutory provisions. Attention is given to specific legislation and court decisions, and fundamentals of legal research. (3 contact hours)

**SLP-210—(1)**

**Special Topics in Security**

Students work with instructor individually or in small groups to develop special projects designed to focus on specific private protective services topics. (1 contact hour)

*This course may be taken four times for credit.*

**SLP-219—(2)**

**Contemporary Issues: Security**

Intended primarily for students interested in protective services issues, the course examines basic policy problems: legislation, professionalism, education, training, literature and research, procedures, administration, and social problems. (2 contact hours)

*This course may be taken four times for credit.*

**SLP-233—(3)**

**Internship**

*Prerequisite: 12 credit hours completed or concurrent in major, including SLP-100 and SLP-101*

*Corequisite: Registration in SLP-237*

Supervised field work experience at an approved protective services training site. (15 contact hours)

**SLP-237—(1)**

**Seminar**

*Corequisite: Registration or credit in SLP-233*

Discussion of various experiences and issues encountered during the supervised protective services field work experience. (1 contact hour)

**SOC—Sociology**

**SOC-101—(3)**

**General Sociology**

Introduces basic sociological concepts and methods, social processes, social changes, and behavior. (3 contact hours) IAI: S7 900

**SOC-102—(3)**

**Marriage and Family**

Institutions and systems of kinship, marriage, family grouping, child rearing, and status placement are studied. (3 contact hours) IAI: S7 902; IAIM: SOC 912

**SOC-103—(3)**

**Sociology of Poverty**

Examine common characteristics and adjustment patterns of groups in the lower socioeconomic strata of American society. (3 contact hours)

**SOC-201—(3)**

**Sociology of Health**

*Prerequisite: SOC-101 or consent of instructor*

Focuses on contemporary issues in health care. Examines physicians and other providers of service, the population receiving services and the organizational settings in which care is provided. Observations of health care facilities are included. (3 contact hours)

**SOC-202—(3)**

**Aging in Contemporary Society**

Focuses on the basic principles and theories of social gerontology: aging America, health status, retirement, family life, sexuality, political involvement, death and dying, and environment as the context of aging. (3 contact hours)

**SOC-204—(3)**

**Sociology of Contemporary Social Problems**

*Prerequisite: SOC-101*

Explore contemporary social problems in American society: crime and delinquency, family and generational problems, urban and rural problems, race discrimination in American life, sex and age discrimination, social deviance, health and medical care, and poverty. (3 contact hours) IAI: S7 901; IAIM: SOC 911

**SOC-210—(3)**

**Minority Groups**

Analysis of racial, religious, ethnic, and other groups, examining persistence of group identity, intergroup relations, social movements, government policy, and related social problems. (3 contact hours) IAI: S7 903D; IAIM: SOC 913

**SOC-215—(3)**

**Sociology of Sex and Gender**

This course is an examination of sex and gender issues in American culture and other cultures across time. The course will define both the concepts of sex and gender, and illustrate the differences between them. The course will focus on both macro and micro strategies for understanding human relationships and identity information. Students will develop an awareness of how basic social institutions such as family, education, religion, government, and the media shape our collective and individual concepts of gender. (3 contact hours) IAI: S7 904D; IAIM: SOC 914

**SPA—Spanish**

**SPA-101—(4)**

**Spanish I**

This beginning course includes oral and aural exercises to develop the ability to understand, speak and write Spanish. Essentials of grammar are stressed. (4 contact hours)

**SPA-102—(4)**

**Spanish II**

*Prerequisite: SPA-101 or 2 years of high school Spanish*

Grammar is further explored. Emphasis is on the culture of Spanish-speaking nations of the Western Hemisphere. (4 contact hours)

**SPA-105—(3)**

**Career Spanish for Business**

Designed for people in business who wish to develop oral communication skills. Emphasizes question-answer patterns, high frequency expressions, and key vocabulary in business travel and tourism, commerce and public relations. Note: SPA-105 is not designed to transfer to colleges or universities as part of a foreign language requirement. SPA-105 will generally transfer as an elective. (3 contact hours)

**SPA-106—(3)**

**Career Spanish for Business II**

*Prerequisite: SPA-105 or consent of instructor*

Emphasizes question-answer patterns, high-frequency expressions and key vocabulary in banking, advertising and real estate. Note: SPA-106 is not designed to transfer to colleges or universities as part of a foreign language requirement. SPA-106 will generally transfer as an elective. (3 contact hours)

**SPA-115—(3)**

**Career Spanish for Health Care I**

Designed for people in health professions who wish to develop oral communication skills. Emphasizes question-answer patterns, high-frequency expressions and key vocabulary in pediatrics, family planning and the emergency room. Note: SPA-115 is not designed to transfer to colleges or universities as part of a foreign language requirement, but will generally transfer as an elective. (3 contact hours)

**SPA-116—(3)**

**Career Spanish for Health Care II**

*Prerequisite: SPA-115 or consent of instructor*

Emphasizes question-answer patterns, high-frequency expressions and key vocabulary in cardiology, drug addiction, and laboratory procedures. Note: SPA-116 is not designed to transfer to colleges or universities as part of a foreign language requirement, but will generally transfer as an elective. (3 contact hours)

**SPA-125—(3)**

**Career Spanish for Law Enforcement I**

Designed for individuals in law enforcement who wish to develop oral communication skills. Emphasizes question-answer patterns, high-frequency expressions and key vocabulary in law enforcement. Note: SPA-125 is not designed to transfer to colleges or universities as part of a foreign language requirement, but will generally transfer as an elective. (3 contact hours)

**SPA-126—(3)**

**Career Spanish for Law Enforcement II**

*Prerequisite: SPA-125 or permission of instructor*

A continuation of SPA-125 designed for individuals in law enforcement who wish to further develop oral communication skills. Emphasizes question-answer patterns, high-frequency expressions and key vocabulary in law enforcement. Note: SPA-126 is not designed to transfer to colleges or universities as part of a foreign language requirement, but will generally transfer as an elective. (3 contact hours)

**SPA-201—(4)**

**Spanish III**

*Prerequisite: SPA-102 or 3 years of high school Spanish*

Review basic language skills conducted in Spanish language with an emphasis on conversation. Composition is included. Reading of advanced texts (novels) is included. (4 contact hours)

**SPA-202—(4)**

**Spanish IV**

*Prerequisite: SPA-201 or 4 years of high school Spanish*

Review language structure and interpretation of literary selections. Class is conducted in Spanish. Emphasis is on Spanish-European culture. (4 contact hours) IAI: H1 900

**SPA-205—(4)**

**Conversational Spanish**

*Prerequisite: SPA-201 or 4 years of high school Spanish*

Provides practice in speaking and understanding everyday Spanish. (4 contact hours)

**SPA-210—(3)**

**Spanish Culture and Civilization**

*Prerequisite: SPA-202 or fluency in Spanish*

Study Spain's historical, intellectual and cultural heritage. Course is taught in Spanish. (3 contact hours)

**SPA-212—(3)**

**Latin American Culture and Civilization**

*Prerequisite: SPA-202 or fluency in Spanish*

Studies Latin America's historical and cultural heritage, and the countries' concerns and realities. (3 contact hours)

**SPA-213—(3)**

**Introduction to Hispanic Literature**

*Prerequisite: SPA-202 or fluency in Spanish*

Survey literary movements, principal writers, and representative works of Spanish and Hispanic American literature. Emphasis is on the 20th century. This course is taught in Spanish. (3 contact hours) IAI: H3 916

**SWK—Social Work**

**SWK-101—(3)**

**Introduction to Social Work**

*Prerequisite: PSY-101 or SOC-101*

The broad field of social welfare services, principal methods of social work intervention, selected social issues, and social work as a profession are covered. (3 contact hours) IAIM: SW 911

**TDL—Transportation, Distribution and Logistics**

**TDL-101—(3)**

**Transportation and Logistics Overview**

*Prerequisite: IMS-101 or IMS-115 or consent of instructor.*

This course is designed to help the learner understand the terminology and major functional areas of transportation, distribution, logistics. The student will be able to describe in detail the various modes of transportation and types of carriers, speak with authority on the basics of distribution operations, and be familiar with the role, impact and value of logistics operations on supply chain management. In addition, students will be able to determine their level of interest in the TDL industry in order to investigate careers in the industry and produce personal educational/career development portfolios to assist them in their search for a career in the industry. (3 contact hours)

**TDL-102—(3)**

**Job Skills for Competitive Advantage**

This course focuses on developing basic professional skills to maximize productivity in the workplace and increase an individual's competitive edge. Emphasis is placed on the student's ability to be prepared for the challenges of everyday situations in the workplace. Major topics include work ethic, responsibility and accountability, business etiquette, effective communication, teamwork, problem solving, diversity in the workplace, stress management, and life balance. (3 contact hours)

**TDL-103—(3)**

**Transportation**

This course studies the fundamental roles and importance of transportation in companies and the society. The course evaluates the complex environment in which transportation services are provided and explores strategies for adapting to a fast-paced and rapidly changing industry. Specific topics include overview of transportation, supply chain, the economy, traditional modes of transportation, special carriers, global transportation, economic operating characteristics of each mode, costing, pricing, carrier strategy and information management. (3 contact hours)

**TDL-104—(3)**

**Introduction to Import/Export**

This course focuses on the major factors of importing and exporting goods and services on a global scale. It includes an understanding of current terminology, regulations, analysis of and opportunities in international markets, basic principles of international financing, exchange rates, and other elements associated with the transportation and distribution operations to facilitate global trade. (3 contact hours)

**TDL-105—(3)**

**Principles of Operations Management**

This course provides a detailed study of operations management, emphasizing the achievement of the highest levels of service and product quality while keeping cost as low as possible. This course provides detailed operations management study. The major areas covered included integrated product development, integrated supply chain management, process and capacity planning and control, inventory planning, forecasting, just-in-time philosophy, push vs. pull program, total quality management, and enterprise resource planning. (3 contact hours)

**TDL-106—(2)**

**Cargo Security**

*Prerequisite: TDL-103*

This course examines relevant facets of maritime, land, pipeline, and air transportation security-related systems and associated issues. It covers applicable legislation and the agencies tasked to oversee each mode of transportation. It also describes how to implement an appropriate program to enhance the security of a particular mode of transportation. (2 contact hours)

**THE—Theater**

**THE-105—(3)**

**Theater Appreciation**

Explores the basic elements of theater—the drama and production methods. Emphasizes the integration of all elements into a production, and the relationship between modern and historical ideas and methods. (3 contact hours) IAI: F1 907; IAIM: TA 917

**THE-107—(3)**

**Film Appreciation**

Introduces film as an art form through viewing and analysis of significant motion pictures. Students will compare film to other art forms and learn to view films with greater understanding. (3 contact hours) IAI: F2 908

**THE-110—(3)**

**History of the Theatre**

This historical view of the theater stresses its social and political role in society from ancient Greece to the present through the study of key playwrights, actors and acting styles, and production techniques and styles. (3 contact hours) IAI: F1 908

**THE-111—(3)**

**History of Film**

An international survey of the historical development of film, emphasizing a study of films and innovations in film production that have had significant influence on film as an art form. Fee is required. (3 contact hours) IAI: F2 909

**THE-115—(3)**

**Acting I**

Develops the actor's instrument, including movement, voice production, improvisation, and fundamental characterization. (4 contact hours) IAIM: TA 914

**THE-116—(3)**

**Acting II**

*Prerequisite: THE-115*

Continues development of acting fundamentals introduced in Acting I, emphasizing an intensive approach to acting exercises, improvisation, monologues, and scene study. (3 contact hours)

**THE-125—(3)**

**Stagecraft**

Introduces safety procedures and basic techniques of scenery and property construction, tool use, scene painting, and backstage organization. Laboratory hours are mandatory. (4 contact hours) IAIM: TA 911

**THE-150—(3)**

**Creative Dramatics**

Covers the role of drama in primary and junior high school education. The scope, values and fundamental skills of drama and its relation to education of the child, with an emphasis on teaching rather than performing skills, are included. (3 contact hours)

**THR—Recreation Therapy**

**THR-150—(3)**

**Recreation Therapy Techniques I**

Covers the nature, and function of recreation as a therapeutic aid in the treatment of special populations. (3 contact hours)

**THR-152—(3)**

**Recreation Therapy Techniques II**

Introduces activity programming methods, organization, presentation, and evaluation. (4 contact hours)

**THR-233—(3)**

**Recreation Therapy Practicum**

*Prerequisite: Consent of practicum coordinator*

*Corequisite: Registration in THR-237*

Includes supervised practical exposure and involvement in the recreation therapy field. Fee is required. (15 contact hours)

**THR-237—(1)**

**Recreation Therapy Seminar**

*Prerequisite: Consent of practicum coordinator*

*Corequisite: Registration in THR-233*

Includes discussion of supervised field service experience in recreation therapy practicum. (1 contact hour)

**WLD—Welding**

**WLD-104—(2)**

**Electric Welding Circuits**

Explore theory and practical knowledge necessary to troubleshoot the welding circuit. Fee is required. (3 contact hours)

**WLD-105—(3)**

**Reading Welding Blueprints**

*Prerequisite: MTH-090*

Emphasizes basic interpretation of blueprints, welding symbols and basic sketching. (4 contact hours)

**WLD-111—(3)**

**Basic Arc/Gas Welding I**

Covers basic understanding of the operation of oxy-acetylene welding and cutting, and shield metal arc welding. Fee is required. (5 contact hours)

**WLD-112—(3)**

**Basic Arc/Gas Welding II**

*Corequisite: Registration or credit in WLD-111*

Increase knowledge and gain intermediate skill in the operation of oxy-fuel welding and cutting, and shield metal arc welding. Fee is required. (5 contact hours)

**WLD-113—(3)**

**Basic Metallurgy and Materials**

Introduces types and use of industrial materials. The general classifications, properties, and industrial applications of materials are studied. (4 contact hours)

**WLD-121—(3)**

**Advanced SMAW and Cutting I**

*Prerequisite: WLD-112*

Gain instruction in shield metal arc welding in the flat, vertical and overhead position to meet industrial requirements for speed and quality. Fee is required. (5 contact hours)

**WLD-122—(3)**

**Advanced SMAW and Cutting II**

*Prerequisite: WLD-112*

*Corequisite: Registration or credit in WLD-121*

Examine advanced techniques in out-of-position shield metal arc welding. Welding of transitional joints is stressed. Fee is required. (5 contact hours)

**WLD-123—(3)**

**MIG, TIG and Brazing I**

*Prerequisite: WLD-112*

Study soldering; brazing; braze welding; gas metal arc welding of aluminum and carbon steels; gas tungsten arc welding of aluminum, carbon and stainless steels; and flux cored arc welding of carbon steels. Fee is required. (5 contact hours) IAIM: MTM 936

**WLD-124—(3)**

**MIG, TIG and Brazing II**

*Prerequisite: WLD-112*

*Corequisite: Registration or credit in WLD-123 or consent of instructor*

Concentrates on brazing and braze welding. Practice gas metal arc welding in all positions on aluminum, stainless and mild steels. Includes instruction in gas tungsten arc welding on aluminum, stainless and mild steels in all positions. Theory and practice in gas metal arc welding, flux cored arc welding, gas tungsten arc welding, and oxy-fuel braze welding are covered. Fee is required. (5 contact hours)

**WLD-137—(2)**

**Individual Welding Problems I**

*Prerequisite: Consent of instructor*

The student prepares a written proposal identifying problems to be addressed and submits it to the instructor. Upon approval, the instructor informs the student of a class meeting time. The student must meet with the instructor prior to registering for the class. Preselected problems are available from the instructor. Fee is required. (4 contact hours)

**WLD-138—(2)**

**Individual Welding Problems II**

*Prerequisite: Consent of instructor*

*Corequisite: Registration in WLD-137*

The student prepares a written proposal identifying problems to be addressed and submits it to the instructor. Upon approval, the instructor informs the student of a class meeting time. The student must meet with the instructor prior to registering for class. Preselected problems are available from the instructor. Fee is required. (4 contact hours)

**WLD-140—(3)**

**Basic Pipe Welding I**

*Prerequisite: WLD-122*

*Corequisite: Registration in WLD-141*

Welding of six-inch schedule 40 and 80 carbon steel pipe in a fixed position, using the shielded metal arc process to ASME code, is covered. Fee is required. (5 contact hours)

**WLD-141—(3)**

**Basic Pipe Welding II**

*Prerequisite: WLD-124*

*Corequisite: Registration in WLD-140 or consent of instructor*

This continuation of basic pipe welding allows students to perfect skills learned in WLD-140. Emphasis is on ASME code requirements for 6G welding of heavy wall carbon steel pipe with an open single Vee butt joint. Fee is required. (5 contact hours)

**WLD-150—(2)**

**Basic Ornamental Welding**

This course is an introduction to the basic metal joining techniques. Areas to be covered include shop safety and proper procedures for setting up and using oxy/acetylene torch, electric welders and metal finishing tools. There will be an explanation of basic metallurgy and the relevance to joining dissimilar metals. Students will learn how to use welding and forging techniques to make metal sculpture, ornamental ironwork and decorative hand-built metal pieces. (3 contact hours)

**WLD-160—(2)**

**Visual Inspection of Welds**

The most common non-destructive testing method is visual inspection. The student will visually inspect welds and identify weld size, acceptable weld profiles and surface weld discontinuity. The student will check welds for conformance and non-conformance with codes. (2 contact hours)