

# Course Descriptions

## Prerequisites and Corequisites

Please be advised that students are responsible for ensuring that all prerequisite and corequisite requirements are met. Students who register for classes before grades are finalized must drop any class if they do not successfully pass the prerequisite or corequisite subject. Students who do not withdraw from classes for which they have not completed required course work may be dropped at any time with no refund.

The following section contains descriptions of courses offered at the College. College policies on general education require a distribution of courses across the following knowledge areas — Communications (C), Humanities (HU), Social Sciences (SS), Mathematics (M), Sciences (SC), Technological or Information Literacy (IT), History (HI), Cultural and Global Awareness (CG) and Ethical Dimension (E). See degree program outlines for specific distributions. All general education courses in this section will be marked with the appropriate letter immediately after the course code. Symbols are used to identify the different categories of courses: (●) dots indicate General Education courses; (■) squares indicate General Education Electives; and (▲) triangles identify career studies and free elective courses. In a few instances general education courses may be used for career courses or general education, but not for both. The program of study in the catalog for each program will identify those instances.

Students should consult their Student Development Specialists about appropriate course selections.

## Accounting

- ▲ **ACCT-101 Principles of Accounting I; 3 credits** An introduction to basic concepts and principles of recording and posting financial information, preparation of trial balance, worksheet and financial statements. Current assets and liabilities are emphasized. (Prerequisites: MATH 012, MATH 015 or passing score in computation on Basic Skills Test; and READ 092, READ 095 or passing score in reading on Basic Skills Test)
- ▲ **ACCT-102 Principles of Accounting II; 3 credits** This course is a continuation of ACCT 101. It introduces partnership and corporate accounting. Long-term assets and liabilities, cash flow and analysis of financial statements are emphasized. (Prerequisite: ACCT 101)
- ▲ **ACCT-105 Introduction to QuickBooks; 3 credits** This course is designed to introduce students to a widely used software program used to record, track and calculate finances that simplifies financial tasks. By using QuickBooks the students will analyze and record a business entity's transactions in a computerized environment rather than using a manual system. (Prerequisite: Computer experience desirable; ACCT 101 is recommended, but not required).
- ▲ **ACCT-112 Managerial Accounting; 3 credits** A study of financial information as presented for internal management purposes, with a focus on cost determination, cost control, performance evaluation and techniques for analyzing information for planning and decision making. (Prerequisite: ACCT 101) **NOTE: This course is offered only in the Spring term.**
- ▲ **ACCT-115 Federal Income Tax; 3 credits** A study of income tax laws as they apply to individuals. Emphasis is placed on tax laws as they apply to income and deductions and the ability to prepare an accurate Federal Income Tax Return. **NOTE: This course is offered in the Fall term only.**
- ▲ **ACCT-203 Intermediate Accounting I; 3 credits** The student will be able to apply generally accepted accounting principles to the preparation of general purpose financial statements with particular emphasis on current assets and current liabilities. The student will become familiar with the opinions of the Accounting Principles Board of the American Institute of Certified Public Accountants and the statements of the

Financial Accounting Standards Board. (Prerequisite: A grade of "C" or higher in ACCT 102) **NOTE: This course is offered only in the Fall term in the evening.**

- ▲ **ACCT-204 Intermediate Accounting II; 3 credits** The student will be able to apply generally accepted accounting principles to the preparation of general purpose financial statements with particular emphasis on non-current assets, non-current liabilities and shareholders equity. The student will become familiar with the opinions of the Accounting Principles Board of the American Institute of Certified Public Accountants and the statements of the Financial Accounting Standards Board. (Prerequisite: A grade of "C" or higher in ACCT 203). **NOTE: This course is offered only in the Spring term in the evening.**
  - ▲ **ACCT-295 Special Project-Accounting; 1 to 3 credits** Students will work independently on an accounting project not suitable to one of the other Accounting courses. A written report will be submitted, with the extent and quality of the project and report to be previously agreed upon by the instructor and student. (Prerequisites: 15 credits of Accounting course work and instructor approval)
  - ▲ **ACCT-299 Accounting Internship; 3 credits** Students will work in a job related to their program, participate in programs on campus and complete an internship workbook based on work experience gained. (Prerequisites: 30 credits to include ACCT 101 and ACCT 102 and permission of instructor and Career Services Representative)
- ## Allied Dental Education
- ▲ **ADEC-110 Introduction to the Dental Profession; 4 credits** This course is designed to introduce the student to the profession of dentistry and allied dental education. Current topics relevant to the practice of dentistry and concepts of general and speciality practice are addressed. (Prerequisite: Acceptance into the Dental Assisting or Dental Hygiene program)
  - ▲ **ADEC-111 Dental Head and Neck Anatomy; 3 credits** This course is a study of the basic structure of the oral cavity, a study of the nomenclature, structure, morphology and function of teeth. Demonstrations and lecture sessions are designed to emphasize the clinical

appearance of the anatomical features of the teeth and point out the relationship of the teeth to adjacent teeth, opposing teeth, surrounding tissues and approximating tissues. This course also describes the structure and function of the gross structures of the head and neck. Discussions will be included to emphasize the importance of anatomical concepts.

- ▲ **ADEC-112 Dental Materials; 3 credits**  
This course is to introduce and reinforce theory, techniques and application in the handling of dental materials. Information and manipulation will be taught to a pre-clinical laboratory proficiency level and will be explored further in the Dental Specialties course. Expanded functions as listed in New Jersey Dental Auxiliary's Act are included whenever applicable to reinforce the importance of understanding the utilization of dental materials.
- ▲ **ADEC-113 Medical Emergency in the Dental Office; 1 credit** The Medical History and Evaluation section of this course is designed specifically to help obtain and record accurately the patient's past and present physical condition and medication history to modify the dental hygiene treatment plan accordingly. The Medical Emergency section of this course will prepare the student for a specific role in the management of medical emergencies. Students will be able to recognize emergency situations and take appropriate steps in treating them with a team approach. (Prerequisite: ADEC-110)
- ▲ **ADEC-114 Dental Health Education; 1 credit** This course is designed to prepare the dental auxiliary student to provide patient education to individuals and groups, focusing on the patient as a whole person, analyzing the patients' lifestyles, values, behavioral patterns and the environment in which the patient lives. The course takes the student through a process regarding the development, implementation and evaluation of dental health education programs in a number of settings. (Prerequisite: ADEC-110)
- ▲ **ADEC-115 Dental Radiology; 3 credits**  
Dental Radiology is a didactic/laboratory course presenting the principles of radiology and its clinical application. Lecture topics include x-ray production, processing, intra and extra oral techniques, quality assurance, utilization of radiographic interpretation and radiation biology and safety, infection control and hazardous waste disposal. Laboratory experiences include manikin

simulation as well as assigned patients. The format will include lectures, demonstrations, workbook questions and a quality assurance project. Students who take the laboratory component will also complete a portfolio with a self-evaluation paper. (Prerequisite: ADEC 110)

- ▲ **ADEC-116 Dental Specialties I; 1 credit**  
This course will allow students to incorporate principles and manipulate properties of dental materials. The course is a prerequisite to Dental Specialties II, where the student will function and perform expanded duties to laboratory proficiency. The expanded duties are outlined in the New Jersey Dental Auxiliary Practice Act. This course consists of both lecture and laboratory sessions. (Prerequisites: ADEC 110 and ADEC 112)
- ▲ **ADEC-117 Practice Management; 1 credit**  
The goal of this course in Practice Management is to provide the Dental Hygiene and Dental Assisting students with background information required to manage the business office of a dental practice effectively. This course utilizes a lecture series with audio-visual aids, role playing and discussions. Guest lectures may also be included.

## American Sign Language

- **AMSL-101 (HU) American Sign Language I; 3 credits** This course is designed to introduce students to the fundamentals of American Sign Language with particular attention to the grammar of the language and the culture of American deaf persons. This course will create a solid foundation of basic conversational skills and a command of the essentials and grammatical principles of the language. Students will participate in exercises to develop skills which are significant to this visually-based language.
- **AMSL-102 (HU) American Sign Language II; 3 credits** Students will build upon skills acquired in the first semester course. Emphasis will be placed on vocabulary development, increased fluency in the language structure and regional and stylistic variations as well as advanced work in deaf culture, folklore and literature. (Prerequisite: AMSL 101)

## Anthropology

- **ANTH-105 (SS) (CG) Cultural Anthropology; 3 credits** The student will investigate the concepts of culture and

apply them to different cultures of the world. The student will determine the universal aspects of each culture concept and investigate the development and consequences of culture's evolution from simple to complex.

- **ANTH-106 (SS) (CG) Cultures of the World; 3 credits** This course investigates the common and distinctive features of culture in each of several broad zones around the world, including native North America, native South America, northern Asia, southern Asia and sub-Saharan Africa. It provides a descriptive overview with emphasis on the variety of human experiences and achievements. The course is intended for students who are interested in the various cultures of the world; satisfies the general education, diversity and cross-cultural requirements; helps students recognize and appreciate the nature and impact of cultural diversity in their communities and work environments.
- **ANTH-115 (SS) Introduction to Archaeology; 3 credits** This course is designed as an Introduction to Archaeological method and theory. Topics will include field excavation techniques, research design, classification and analysis of artifacts, as well as approaches toward the reconstruction of ancient cultural systems.
- **ANTH-205 (SS) Culture and Personality; 3 credits** Culture and personality is a sub-discipline of anthropology that deals with the relationship between the culture of a particular society and the personality of its members. In this course, issues of identity, development, and sex/gender roles will be discussed as they apply to small scale, as well as industrial societies. In addition, we will investigate, through readings, discussion, and a field trip, the ways in which culture and personality have impacted the course of historical events and culture change.
- ▲ **ANTH-215 Archaeological Laboratory Practicum; 3 credits** This course is designed as an Introduction to Archaeological Laboratory Methods. Students will receive instruction in a broad range of archaeological activities, including artifact processing, cataloging, conservation, illustration, photography, analysis and report preparation. This course will offer laboratory training through the analysis of selected prehistoric sites in Monmouth County.
- ▲ **ANTH-216 Fieldwork in Archaeology; 3 credits** This course is designed as an introduction to archaeological field methods. Students will receive instruction in a broad

range of archaeological activities, including excavation techniques, recording procedures and field photography. This course will offer field training through the excavation of a selected historic site in Monmouth County.

▲ **ANTH-295 Special Project-Anthropology; 1 to 6 credits**

## Arabic

- **ARAB-101 (HU) Elementary Arabic I; 4 credits** This course is designed for students with no previous knowledge or very limited knowledge of the Arabic language. Strong emphasis will be placed on acquiring conversational and comprehension skills, using practical and interesting situational materials that will stress both language and culture. Grammatical patterns and syntax will be introduced with the aim that students read and write what they have learned to say and understand. (This course is not opened to native Arabic speakers or to students with more than two years of Arabic in high school, except by instructor approval.)
- **ARAB-102 (HU) Elementary Arabic II; 4 credits** Students will build upon skills acquired in the first semester course and will be able to express themselves in a variety of more complex situations in Arabic. (Prerequisite: A grade of "C" or higher in ARAB 101 or instructor approval.)

## Architecture

- **ARCH-121 (SC) People and Their Environment; 3 credits** This introduction to design presents an overview of the relationship between people and their environment, both natural and man-made. The emphasis is on seeing and comprehending the world around us, identifying and discussing the forces of change at work in the environment and clarifying the role of the environmental designer. Supplementing the faculty lectures will be guest lectures and field trips.
- ▲ **ARCH-131 Introduction to Design I; 4 credits** This course is an introduction to basic principles and elements of design with emphasis on design methodology, abstract design theories and concepts and communication skills. The course draws upon many areas of design, particularly architectural, interior design and industrial design, and constructs a systematic introduction to these fields.
- ▲ **ARCH-132 Introduction to Design II; 4 credits** This course continues the design fundamentals introduced in ARCH 131. Issues related to sensitivity to context and graphic analysis of existing architecture are also explored. (Prerequisites: A grade of "C" or higher in ARCH 121 and ARCH 131)
- ▲ **ARCH-151 Architectural Construction I; 3 credits** This course is an introduction to the construction process and its relationship to architecture and interior design. The study of materials and methods of construction is concerned primarily with wood, heavy timber and masonry construction and is presented through lectures, exercises, case studies and site visits. Emphasis is on process, compatibility of materials and drawings as a communication tool in architecture and interior design.
- ▲ **ARCH-152 Architectural Construction II; 3 credits** A continuation of ARCH 151 that relates construction to architectural design. This will include an investigation of factors such as building codes, structure and mechanical system issues. The course will study materials and methods of masonry, concrete and steel construction. Commercial building planning and basic environmental systems will also be explored. Emphasis will be placed on criteria for selection of materials and systems, materials research, standards and test methods and forces of deterioration. Course material will be presented through lectures, field trips, films and case studies. (Prerequisite: A grade of "C" or higher in ARCH 151 or permission of instructor)
- ▲ **ARCH-225 3D Architectural CAD; 4 credits** The student will be presented with a comprehensive course in 3D Architecture. The student will acquire the skills necessary to create photorealistic images, animations and construction documents. The assignments will focus on typical interior design and architectural applications. Students will create buildings in 3D using a dedicated 3D architectural package. Integrated and object-oriented 3D CAD is becoming the mainstream design and documentation tool for architectural practices. Traditional drafting-based systems are being phased out in favor of 3D model-based solutions. (Prerequisites: Any CADD course or computer literacy)
- ▲ **ARCH-235 Media and Communication: Portfolio Development; 4 credits** The student will be introduced to various media relative to the development of a professional level design portfolio. Media will include pen and ink, marker, color pencil, pencil and films. The use of different reprographic techniques and applications will also be explored. (Prerequisites: A grade of "C" or higher in ARCH 131 AND ARCH 132)
- **ARCH-245 (HU) History of Architecture: Pre-Historic to Gothic; 3 credits** This course is a survey of social, political, technological, functional and aesthetic concerns of Western Architecture from its earliest beginnings to the late Gothic period. (Prerequisites: READ 092, READ 095 or passing score in reading on Basic Skills Test; and ENGL 121)
- **ARCH-246 (HU) History of Architecture: Renaissance Through the 19th Century; 3 credits** This course is a survey of social, political, technological, functional and aesthetic concerns of Western Architecture from the Renaissance through the mid-19th century. (Prerequisites: READ 092, READ 095 or passing score in reading on Basic Skills Test; and ENGL 121)
- **ARCH-247 (HU) History of Architecture: Industrial Revolution to Modernism; 3 credits** The student will study the history of modern architecture from its precursors in the late 19th century through the "Late Modernist" movements after World War II. The student will be able to consider the technological, social, economic and cultural factors which have helped to shape the development of modern architecture relative to modern history and culture. Emphasis on American, regional and European architecture. (Prerequisites: READ 092, READ 095 or passing score in reading on Basic Skills Test; and ENGL 121)
- ▲ **ARCH-261 Architectural Studio I; 5 credits** The studio builds upon the abstract concepts introduced in ARCH 131 and ARCH 132 toward three dimensional structures of singular functions. The lecture hour explores, in depth, the nature of technology, environment and social order, as they relate to studio work. (Prerequisites: A grade of "C" or higher in ARCH 131 and ARCH 132)
- ▲ **ARCH-262 Architectural Studio II; 5 credits** This studio course continues to build upon the design concepts introduced in ARCH 261. The lecture hour explores in depth aspects of architectural design. Detailed analysis and the design development of a complex program will be studied. (Prerequisite: A grade of "C" or higher in ARCH 261)
- ▲ **ARCH-295 Special Project - Architecture; 1 to 5 credits** Students interested in pursuing a particular aspect of Architecture

which extends beyond the scope of our existing courses may develop a proposal, subject to the approval of the Architecture Program Coordinator.

## Art

(For Interior Design courses see INTD on page 165)

## Computer Arts

- **ARTC-141 (HU) Digital Paint I; 3 credits**  
This course will provide students with an understanding of the theory and operation of computers as artist's tools. They will use paint software to create images. Students will need to dedicate additional time to working in the computer studio in order to complete assignments. (No previous computer experience is required. Some previous drawing experience is useful.)
- **ARTC-142 (HU) Digital Paint II; 3 credits**  
Students will build upon the skills developed in Computer Art I to create computer art images. Color scanners will be used to digitize images. Students will be encouraged to develop a portfolio of images. Students will need to dedicate additional time to working in the Computer Art Studio in order to complete assignments. (Prerequisite: ARTC 141 or permission of instructor)
- ▲ **ARTC-147 Desktop Publishing I; 3 credits**  
Students will be introduced to graphic illustration software for Desktop Publishing. The student will design color images to import into page layout software. Scanners and high resolution laser printers will be utilized. Students will need to spend additional time in the lab in order to complete assignments.
- ▲ **ARTC-155 Designing for the Internet I; 3 credits**  
This course will introduce students to web layout and design for the internet. Students will work with software to design web pages that illustrate a proficiency with the navigational demands of web sites. Students will work with a variety of techniques that enhance the overall look of the web site. They will incorporate a variety of behaviors and animations into their work. An integral part of the course is site management where the student learns to place their work on a server and update the site. Students will need to spend additional time in the lab in order to complete assignments. (Prerequisite: ARTC 142)

▲ **ARTC-247 Desktop Publishing II; 3 credits**  
Students will build upon the skills developed in the ARTC 147 course. This course will offer students an opportunity to complete assignments utilizing page layout software. Students will produce a variety of documents that combine graphics and text and import them into page layout software. (Prerequisite: ARTC 147)

▲ **ARTC-251 Internet Animation I; 3 credits**  
Students will be introduced to vector based animation software for the internet. The student will create and modify vector objects. Single and multiple timelines will be created. Students will create frame by frame animations as well as animations with motion tweening. Interactivity with frame actions and buttons will be studied. Students will need to spend additional time in the lab in order to complete assignments. (Prerequisite: ARTC 155)

▲ **ARTC-252 Internet Animation II; 3 credits**  
This course expands on the concepts learned in Internet Animation I. Students will create a series of vector based interactive websites. The assignments will build upon the student's knowledge of action scripting. Students will build preloaders, create scrollable text, build draggable music volume sliders and create smart clips. Students will need to spend 3-5 hours per week in the lab in order to complete assignments. (Prerequisite: ARTC 251)

▲ **ARTC-255 Designing for the Internet II; 3 credits**  
Students will build upon the skills developed in ARTC 248 to create web pages using professional web site development software. This course is the second in a series that stresses the art elements essential to page layout and design. Students will create web sites that use the concepts taught in this course. Students will need to spend additional time in the lab in order to complete assignments. (Prerequisite: ARTC 155)

## Art History

● **ARTH-105 (HU) Art Appreciation; 3 credits**  
Students will discuss the nature of aesthetics in general and art in particular. They will demonstrate an understanding of such essential principles as form, unity, space, color, balance and emphasis, and will be able to identify and analyze the works of selected artists from historical periods. Field trips may be required. (Prerequisites: READ 092, READ 095 or passing score in reading

on Basic Skills Test; and ENGL 095 or passing score in English on Basic Skills Test)

- **ARTH-106 (HU) History of Art: Ancient Through Medieval; 3 credits**  
The student will survey the history of painting, sculpture and architecture from the Ancient through Medieval period with emphasis on stylistic analysis and the relationship of art to its cultural and historical center. Field trips may be required. (Prerequisites: READ 092, READ 095 or passing score in reading on Basic Skills Test; and ENGL 121)
- **ARTH-107 (HU) History of Art: Renaissance Through Contemporary; 3 credits**  
The student will survey the history of painting, sculpture and architecture from the Renaissance to the Contemporary with emphasis on stylistic analysis and the relationship of art to its cultural and historical context. Field trips may be required. (Students are not required, but are encouraged to take ARTH 106 prior to ARTH 107). (Prerequisites: READ 092, READ 095 or passing score in reading on Basic Skills Test; and ENGL 121)
- **ARTH-201 (HU) History of Western Architecture; 3 credits**  
This course is a broad-based survey of the history of Western architecture from its beginnings in Mesopotamia and Egypt through the twentieth century, with emphasis on development of style, technology and the relationship of society to the built environment. Field trips may be required. (Prerequisite: ENGL 121)
- **ARTH-205 (HU) Modern Art; 3 credits**  
This course is a broad-based survey of the history of painting, sculpture and architecture of the twentieth century in Europe and the United States with emphasis on formal and stylistic analysis and the relationship of art to its cultural and historical context. Field trips may be required. (Prerequisites: ARTH 107 and ENGL 121)

## Studio Arts

▲ **ARTS-109 Introduction to Art Therapy; 3 credits**  
This course is designed to answer the questions "What is art therapy?" and "How does it work?". An overview of the theoretical foundations and history of art therapy is presented. The application of art therapy in various settings and populations will be explored experimentally and didactically. (Note: ARTS 109 is offered in the Spring term)

■ **ARTS-111 (HU) Drawing I; 3 credits**

Students will gain a working knowledge of basic principles and techniques of drawing in a studio setting. The course includes: value systems, light/shade, perspective, proportion and composition. Field trips may be required.

■ **ARTS-112 (HU) Drawing II; 3 credits**

Students will deal with advanced drawing concepts in relation to materials and composition. Students explore various approaches to drawing, both traditional and contemporary. Media explored will include color pencil, collage, pen, brush and ink. Field trips may be required. (Prerequisite: ARTS 111)

■ **ARTS-121 (HU) 2-D Design; 3 credits**

Students will be able to control and organize various design elements: line, shape, value, color, texture and space. Projects done in a variety of media will express an understanding of these elements.

■ **ARTS-122 (HU) Color Theory; 3 credits**

The student will be introduced to basic color relationships and the interaction of color. Students will develop an understanding of color phenomena relating to the two-dimensional plane and its application to the visual arts. In a studio setting, color problems are explored through paint, collage and paper.

■ **ARTS-123 (HU) 3-D Design; 3 credits**

The student will be introduced to the basic concepts of three-dimensional design. In a studio setting, students will examine three-dimensional relationships and explore methods of shaping and structuring space. The course will involve project construction, lecture and critique. Field trips may be required. (Prerequisite: ARTS-121 or ARCH-131)

■ **ARTS-131 (HU) Printmaking; 3 credits**

The student will gain a working knowledge of the basic processes of intaglio printmaking. These will include the preparation of printing plates, the making of various kinds of prints and operation of a printing press. Other areas to be explored will include aqua tint, dry-point and the collograph print. Field trips may be required.

■ **ARTS-151 (HU) Ceramics I; 3 credits**

Students will work with basic hand-building techniques, executing at least two pieces of pottery in each of the basic processes. Students will also have the opportunity to learn the use of the potter's wheel, and will be introduced to various embellishing, glazing

and firing methods to finish the pottery.

■ **ARTS-152 (HU) Ceramics II; 3 credits**

The student will work primarily on the potter's wheel, will explore advanced hand-building techniques and will experiment with glaze formulation. The student will be able to embellish, glaze and fire all the work. (Prerequisite: ARTS 151)

■ **ARTS-156 (HU) Sculpture I; 3 credits**

The student will be introduced to the basic concepts of sculpture. In a studio setting, the relationship between form, space and concept will be explored through a series of exercises designed to expand the student's understanding of the materials and processes utilized in sculpture.

■ **ARTS-161 (HU) Jewelry I; 3 credits**

Students will be introduced to the basic metalworking techniques, and the use of specialized tools and equipment employed in jewelry making. Emphasis will be on designing and creating finished pieces of fabricated and cast jewelry. Students will be acquiring their own metal, stones and other materials needed for the projects. Extra assisted studio time will be made available to work outside of class.

■ **ARTS-162 (HU) Jewelry II; 3 credits**

This course is a continuation of Jewelry I. Students will work with advanced techniques in casting and fabrication and will be introduced to etching, enameling and anodizing. Emphasis will be on experimentation with materials and techniques, and on designing and creating original, finished pieces of jewelry. (Prerequisite: A grade of "C" or higher in ARTS 161)

■ **ARTS-213 (HU) Figure Drawing; 3 credits**

In this studio course working from the live model, the student will be able to translate basic structural relationships, both skeletal and muscular, through the drawing medium. Various materials will be used. (Prerequisite: ARTS 111 or permission of instructor)

▲ **ARTS-214 Figure Drawing II; 3 credits**

Figure Drawing II is designed as an advanced studio drawing course working with the human figure. The student will work on developing new drawing strategies in dealing with the figure as well as experimenting with different art media. Personal approach and style will also be a consideration of the course. (Prerequisites: ARTS 213)

■ **ARTS-231 (HU) Painting I; 3 credits**

This course is the introduction to the fundamentals of studio practices and painting

approaches used in oils. Emphasis will be placed on personal expression as well as on an understanding of various historical and contemporary modes. Emphasis will also be placed on the development of the palette, color mixing and on compositions from still life. Studio sessions and critiques are on an individual basis. (Prerequisite: ARTS 111 or permission of instructor)

■ **ARTS-232 (HU) Painting II; 3 credits**

In addition to working from the still-life, students will solve pictorial problems such as abstract handling of color relationships and spatial structures. Further personal exploration of the media and class critiques with slides and films are part of the students' experience. (Prerequisite: ARTS 231 or permission of instructor)

■ **ARTS-233 (HU) Painting III; 3 credits**

This is an acrylic painting course designed for the more experienced student in which certain problems of form and approach to subject are investigated. Experimental techniques with media, size, format and construction will be stressed. Weekly critique sessions are part of the course. (Prerequisite: ARTS 231 or permission of instructor)

■ **ARTS-235 (HU) Watercolor; 3 credits**

The student will be introduced to the techniques and processes of watercolor: washes, texture applications, brush manipulations and stretched paper. Emphasis will be placed on materials and composition. Field trips may be required. (Prerequisite: ARTS 111 or permission of instructor)

▲ **ARTS-295 Special Project – Art;**

**1 to 6 credits** Students may choose to specialize or investigate some area in greater depth by selecting 1-6 credits in this individual learning course for the major.

▲ **ARTS-299 Art Internship; 1 to 3 credits**

This work/study program provides students with an opportunity to obtain direct and practical art experience. Students will work in areas related to their program, such as: Interior Design, Studio, Gallery and Museum Apprenticeship, Art Instruction, Applied and Commercial Arts. (Prerequisite: Students in Art Option or Creative Arts Certificate Program must have completed 30 credits in Art and have permission of the instructor and Career Services Representative. Students in Interior Design Option must have completed 30 credits, including 15 credits in Interior Design and Art, and have permission of the instructor and Career Services Representative)

## Automotive Technology

- ▲ **AUTO-100 Basic Automotive Maintenance; 4 credits** This course is designed for the “do-it-yourself mechanic”. Various systems of the automobile are studied with special emphasis placed on general maintenance and service. Practical work performed as part of this course is designed to teach the student proper technique and procedures that he/she can perform at home to help maintain an automobile properly. Most of this information is consumer oriented and is highly useful whether performing your own maintenance or not.
- ▲ **AUTO-101 Automotive Fundamentals; 4 credits** This is the first course in a series for Automotive majors. The primary focus is on the theory, operation and servicing of various systems of the modern automobile. Special emphasis will be placed on examining engine, ignition and fuel system fundamentals. Shop policies and procedures, career opportunities, consumer information and industry standards will be discussed to higher prepare the student for future employment in the automotive service industry.
- ▲ **AUTO-106 Basic Automotive Systems/Air Conditioning; 4 credits** This is specifically designed for General Motors ASEP students. It covers the servicing of automotive systems as they pertain to GM vehicles. It includes air conditioning systems.
- ▲ **AUTO-111 Automotive Drivelines and Transmissions; 4 credits** This course investigates the different kinds of drive systems used in today’s automobiles and requires the student to learn how to service and overhaul various components of those systems. Included are clutches, manual and automatic transmissions, drive shafts and half-shafts, differentials, rear axles, front-wheel drive and four-wheel drive. (Prerequisite or Corequisite: A grade of “C” or higher in AUTO 101)
- ▲ **AUTO-123 Engine Performance I; 4 credits** This course is designed to give students the background training required to service automotive computer systems. Special emphasis will be placed on computer controlled fuel systems and the use of scan tools and diagnostic modes to solve drivability problems. Prerequisite: A grade of “C” or higher in AUTO 101 and AUTO 141)
- ▲ **AUTO-131 Automotive Steering, Suspension and Alignment; 4 credits** This course is designed to give students knowledge and practical experience in servicing the various steering and suspension systems. Students will perform various steering and suspension repairs, as well as apply their understanding of alignment factors by performing complete two and four-wheel alignments. (Prerequisite or Corequisite: A grade of “C” or higher in AUTO 101)
- ▲ **AUTO-132 Automotive Brake Systems; 4 credits** This course emphasizes the design, operation, diagnosis and repair procedures associated with modern automotive brake systems. Beginning with overhaul of standard drum and disc brake systems, the course of study will include machining processes, hydraulic system design and repair, power brakes and anti-lock brake systems. (Prerequisite or Corequisite: A grade of “C” or higher in AUTO 101)
- ▲ **AUTO-135 Steering, Suspension, Alignment and Brakes; 4 credits** This is a specialized course for General Motors Automotive Service Education Program students. The course covers the theory, inspection, maintenance and overhaul of General Motors brake, steering and suspension systems. As part of the learning experience, students will perform four-wheel computerized alignments and diagnose and repair GM anti-lock brake systems.
- ▲ **AUTO-141 Automotive Electricity/Electronics I; 4 credits** Basic electricity and how it applies to the automobile is the primary focus of this course. Students are required to test and overhaul components of the starting, charging, body and chassis electrical systems. System design and basic electronics are discussed in order to provide a better understanding of the role of electronics and computers in today’s cars. (Prerequisite or Corequisite: A grade of “C” or higher in AUTO 101)
- ▲ **AUTO-171 Automotive Systems Operations for the Parts and Service Professional; 4 credits** The purpose of this course is to present the novice automotive student with the basic knowledge of systems, components and normal operating parameters of the automobile. The goal is to prepare the student to communicate service needs clearly to both the customer and the technician.
- ▲ **AUTO-172 Parts & Service Industry Professional – Industry Practices, Procedures and Standards; 4 credits** This capstone course in the Automotive Parts and Service Management Certificate Program, is designed to give the student specific knowledge of the skills required to work successfully in the Automotive industry in a Parts and/or Service management position. Topics ranging from personal accountability, to store policies, use of computer systems will be studied through discussion, visitations and guest lecturers. (Prerequisite: A grade of “C” or higher in AUTO 171)
- ▲ **AUTO-213 Automatic and Manual Transmission Overhaul; 4 credits** Building on knowledge gained in AUTO 111, this course is designed to give the student practical experience in the overhaul of automatic transmissions and transaxles. To further enhance the student’s understanding of this discipline, special instruction on torque converters, torque converter clutches and electronic transmission operation is also included in this course of study. (Prerequisite: A grade of “C” or higher in AUTO 111)
- ▲ **AUTO-222 Engine Performance II; 4 credits** This course is designed to examine automotive emissions and methods used to control them, with special emphasis placed on computer control of both emissions and ignition systems, and how these areas affect engine performance. Practical use of scan tools, self-diagnostic modes and engine analyzers will be covered to better prepare the student to solve related drivability problems. (Prerequisite: A grade of “C” or higher in AUTO 123; and AUTO 141)
- ▲ **AUTO-226 Automotive Engines I; 4 credits** This course will familiarize students with engine overhaul procedures. Proper diagnosis, disassembly, inspection and measuring, machining operations and reassembly will be topics studied. Lab work will include complete disassembly and reassembly of an automotive engine; emphasis will be placed on machining of cylinder heads and valves. (Prerequisite: A grade of “C” or higher in AUTO 123 and AUTO 141)
- ▲ **AUTO-227 Automotive Engines II; 4 credits** This course is designed for the student interested in further training on automotive engine overhaul. Emphasis will be on complete engine disassembly, inspection and reassembly of a short block. Special attention will be paid to machining of cylinders, connecting rods, main bearings, crankshafts and cylinder heads. (Prerequisite: A grade of “C” or higher in AUTO 226)

▲ **AUTO-241 Automotive Electricity/ Electronics II; 3 credits** Beginning with a review of fundamentals, this course proceeds into capacitance, magnetism, semi-conductors, amplifiers, integrated circuits and microprocessors as they relate to the modern automobile. Practical application of the above information will be stressed as part of the diagnostic and trouble-shooting procedures. (Prerequisite: A grade of "C" or higher in AUTO 123 and AUTO 141.)

▲ **AUTO-243 Automotive Heating and Air Conditioning; 4 credits** This course is designed to cover the automotive heating, cooling and refrigeration systems. Emphasis will be placed on refrigeration system operation, service and diagnosis, as well as diagnosis and repair of cooling systems and other power accessories commonly found on modern automobiles. (Prerequisite: A grade of "C" or higher in AUTO 123 and AUTO 141. Corequisite: Toyota T-TEN students may take AUTO 123 concurrent with AUTO 243)

▲ **AUTO-295 Special Project – Automotive Technology; 1 to 6 credits** Students may choose to specialize or investigate some area in greater depth by selecting 1-6 credits in this individual learning course for the Automotive Technology major. An interview with the appropriate Auto Tech instructor is required prior to registration.

▲ **AUTO-299 Automotive Internship; 1 to 6 credits** This course is designed for the Automotive Technology major who wishes to earn credit while working in the field. The course requirements will be discussed with an automotive, instructor and Career Services Representative prior to a student's participation.

## Biology

● **BIOL-101 (SC) General Biology I; 4 credits** This course is designed for science majors and for those students in other majors with a laboratory science requirement. Through laboratory exercises and classroom experiences the student will demonstrate the ability to identify and interpret basic biological concepts. These concepts include the chemical basis of life, metabolism, reproduction and development, genetic continuity and heredity as they pertain to the cellular through organismic levels of organization in living organisms. (Prerequisites: HS Biology or a grade of "C" or higher in BIOL 105, HS Chemistry or a grade of "C" or higher in CHEM 100 or

CHEM 136, and a grade of "C" or higher in MATH 021 or MATH 025 or passing score in algebra on Basic Skills Test, and READ 095 or passing score in reading on Basic Skills Test, ENGL 095 or passing score in writing on Basic Skills Test)

● **BIOL-102 (SC) General Biology II; 4 credits** Through laboratory exercises and classroom experiences the student will demonstrate the ability to identify and interpret basic biological concepts related to the evolution, behavior, unity and diversity and ecology of living organisms. This course, together with BIOL 101, serves as an initial sequence for further studies in the biological sciences. (Prerequisite: A grade of "C" or higher in BIOL 101)

● **BIOL-105 (SC) Life Sciences; 4 credits** This course is intended to meet a laboratory science requirement for the non-science major. Through laboratory exercises and classroom experiences the student will demonstrate an appreciation of life phenomena and the diversity of living organisms. Topics include basic metabolic functions that create and sustain life, reproduction, growth, development, behavior and adaptation of selected life forms and the interactions among living organisms. (Prerequisite: A grade of "C" or higher in MATH 012, MATH 015 or passing score in computation on Basic Skills Test, READ 095 or passing score in reading on Basic Skills test, and ENGL 095 or passing score in writing on Basic Skills Test)

■ **BIOL-106 (SC) Field Biology and Ecology; 4 credits** This course is designed to introduce the student to the basic concepts of ecology and field biology. The student will investigate and demonstrate an understanding of the concepts of ecology, environment, diversity and population ecology within the setting of ecosystems and biomes. Laboratory exercises and field trips are designed to introduce qualitative and quantitative methods for the measurement of factors and populations in field situations, procedures for recording data and coverage of current topics and trends in the environmental field. (Prerequisite: A grade of "C" or higher in BIOL 102 or BIOL 105)

● **BIOL-107 (SC) Human Biology; 3 credits** This is a survey course for non-science majors. Upon completion of this course, the student will demonstrate a basic understanding of how the human body functions in healthy and diseased states. Included in the course is a broad overview of human

anatomy, physiology and organization. Class lecture and discussion emphasize current topics related to human health and wellness. (Prerequisite: A grade of "C" or higher in MATH 012, MATH 015 or passing score in computation on Basic Skills Test, READ 095 or passing score in reading on Basic Skills Test and ENGL 095 or passing score in writing on Basic Skills Test)

● **BIOL-111 (SC) Anatomy and Physiology I; 4 credits** This course is designed to satisfy the requirements of health sciences programs, the needs of the pre-professional student and those who desire a deeper understanding of the human body. Through classroom and laboratory experiences, the student will be able to identify and describe the anatomy, and demonstrate an understanding of the physiology of the human body at the molecular, cellular, tissue and organ system levels. Covered in this course are the integumentary, skeletal, muscular, nervous and digestive systems of the human body. (Prerequisites: HS Biology or a grade of "C" or higher in BIOL 105, HS Chemistry or a grade of "C" or higher in CHEM 100 or CHEM 136, and a grade of "C" or higher in MATH 021 or MATH 025 or passing score in algebra on Basic Skills Test, READ 095 or passing score in reading on Basic Skills Test, and ENGL 095 or passing score in writing on Basic Skills Test)

● **BIOL-112 (SC) Anatomy and Physiology II; 4 credits** As the second course in the Anatomy and Physiology sequence, this course is designed to satisfy the requirements of health sciences programs, the needs of the pre-professional student and those who desire a deeper understanding of the human body. Through classroom and laboratory experiences, the student will be able to identify and describe the anatomy, and demonstrate an understanding of the physiology of the human body at the molecular, cellular, tissue and organ system levels. Covered in this course are the cardiovascular, immune, lymphatic, urinary, respiratory, endocrine and reproductive systems of the human body. (Prerequisite: A grade of "C" or higher in BIOL 111)

● **BIOL-125 (SC) Introduction to Plants; 4 credits** This course is intended to meet a laboratory science requirement for the non-science major, and is a required course in the Ornamental Horticulture Certificate Program. The student will become familiar with the structure and function of plant roots, stems, leaves, flowers, fruits and seeds. An understanding of plant diversity

develops through the study of plant evolution and classification. A variety of interesting plants native to various parts of the world will be observed and discussed with emphasis on their structure, growth requirements, propagation and ecological role in the natural landscape. Laboratory activities include greenhouse projects and several field trips. (Prerequisite: Grade of "C" or higher in MATH 012, MATH 015 or passing score in computation on Basic Skills Test, READ 095 or passing score in reading on Basic skills Test, and ENGL 095 or passing score in writing on Basic Skills Test)

■ **BIOL-126 (SC) Exploring Biology: Cycles of Life; 3 credits**

Exploring Biology: Cycles of Life is a general study of the basic concepts of biology for the non-science major. Topics include: chemistry in life, cell structure and function, genetics, evolution, diversity of life and ecology. Topics are covered at an introductory level to provide students an overview of biological science and its relevance in the world. (Prerequisite: MATH 012 or MATH 015 or passing score in computation on Basic Skills Test, READ 095 or passing score in reading on Basic Skills Test, and ENGL 095 or passing score in writing on Basic Skills Test)

▲ **BIOL-131 Diagnostic Bacteriology; 4 credits**

This course is specifically designed for individuals wishing to function as diagnostic bacteriologists in the clinical and industrial setting. The course will stress proper collection, transport, culturing and sensitivities procedures used to identify unknown potential pathogens. The proper staining, serological testing and biological analysis of bacteria will be thoroughly covered. (Prerequisite: A grade of "C" or higher in BIOL 112)

▲ **BIOL-205 Invertebrate Zoology; 4 credits**

This course is designed for science majors. Through classroom and laboratory experiences, the student will demonstrate an understanding of taxonomy, morphology, structure, function and evolution of the various invertebrate phyla of animals. Laboratory experiences will include field collection, identification, taxonomy and description of fundamental anatomical traits found within representative phyla. **NOTE: This course is offered only in the Fall term.** (Prerequisite: A grade of "C" or higher in BIOL 102)

▲ **BIOL-206 Vertebrate Zoology; 4 credits**

This course is designed for the science major, pre-professional or advanced health

science student. Through classroom and laboratory experiences, the student will demonstrate an understanding of the probable origins of, and be able to identify in detail, the anatomical characteristics of organisms of the phylum Chordata. Starting with the primitive Amphioxus and progressing to the complex mammals, the student will demonstrate an understanding of the ontogenic and phylogenetic relationships of the three chordate subphyla and seven vertebrate classes. Laboratory experiences include detailed dissection of representative organisms. **NOTE: This course is offered only in the Spring term.** (Prerequisite: A grade of "C" or higher in BIOL 102 or BIOL 112)

■ **BIOL-207 (SC) Marine Biology; 4 credits**

This course is designed for the student majoring in biology, marine studies or ecology. Through classroom and laboratory experiences, the student will be able to identify the environmental parameters of marine habitats and their effect on the distribution of marine flora and fauna. Students will collect and identify numerous representatives of local marine forms, both in the laboratory and field settings. The student will also demonstrate proficiency in the utilization of various types of equipment used to complete such tasks, and demonstrate knowledge of the anatomy, physiology and behavior of marine organisms. **NOTE: This course is offered only in the Summer I and III terms.** (Prerequisite: A grade of "C" or higher in BIOL 102 or ONCG 111)

■ **BIOL-213 (SC) Microbiology; 4 credits**

The biology of pathogenic micro-organisms will be stressed, emphasizing their microscopic and molecular aspects. Students will describe, in detail, the relationship existing between the host-parasite complex during the diseased state. They will also become acquainted with those characteristics which endow certain microbes with a pathogenic nature. Students will be able to list and characterize various pathogenic bacteria, viruses, fungi and protozoan parasites. Isolation and identification techniques in microbiology will be mastered by the student in the laboratory. The role of chemotherapy, immunology and serology used to combat pathogens will be examined thoroughly. Finally, the homeostatic defense mechanisms of the body, especially those against invading micro-organisms, will be discussed in great detail. (Prerequisite: A grade of "C" or higher in BIOL 102 or BIOL 112)

▲ **BIOL-214 Introduction to Pharmacology; 4 credits**

This course is designed for the

student majoring in science or health science. The course introduces students to the basic principles of pharmacokinetics and pharmacodynamics. These basic principles of pharmacology are covered through discussion of the responses of biological systems to drugs and chemicals. (Prerequisite: A grade of "C" or higher in BIOL 102 or BIOL 112)

▲ **BIOL-215 Cell and Molecular Biology; 4 credits**

This course is designed to provide biology majors with a broad, integrated understanding of contemporary cell and molecular biology, biochemistry and biotechnology. Lecture topics will include: structure and function of biological macromolecules; subcellular aspects of biological organization; gene organization, expression and regulation; recombinant DNA technology, genetic engineering and gene therapy; cell signaling; and cellular aspects of motility, development and cancer. Experimental laboratory exercises will focus on modern, fundamental techniques of molecular biology. Techniques will include: electron microscopy; bacterial culturing; isolation, cloning and sequencing of DNA; plasmid manipulation; gel electrophoresis of nucleic acids; restriction enzyme mapping; methods for analyzing gene expression; computer modeling of protein structure; and DNA database analysis on the Internet. (Prerequisites: A grade of "C" or higher in BIOL 102, CHEM 102 and CHEM 235 or CHEM 203)

▲ **BIOL-232 Eucaryotic Microbiology; 4 credits**

The classification of pathogenic, mycological, protozoan and helminth forms will be discussed. The student will be required to recognize major morphological structures of the eucaryotes for the purposes of identification. Proper specimen collection and transport will be emphasized for all classes of eucaryotes. Composition and use of various mycological and protozoan culture media will be mastered. (Prerequisite: A grade of "C" or higher in BIOL 131)

▲ **BIOL-295 Special Project-Biology; 1 to 4 credits**

Students interested in pursuing a particular aspect of biology which extends beyond the scope of existing biology courses may develop a proposal, subject to the approval of a biology department faculty member.

▲ **BIOL-299 Biology Internship; 1 to 6 credits**

Students will work in an internship job related to biology and complete internship learning objectives under faculty super-

vision. Approval of instructor, Department Chairperson and Division Chairperson. (Prerequisite: A grade of "C" or higher in BIOL 102 or BIOL 112)

## Business

▲ **BUSI-105 (SS) Introduction to Business; 3 credits** In this survey course, the student will receive an overview of functional areas of business and learn the basic concepts of the business world. Some topics covered include management, managing human resources, labor relations, ethics and social responsibility, accounting, money and banking, securities and investments, marketing, and globalization. Upon completion of this course, students will understand the various forms of business ownership and the free enterprise system and how it contrasts with other systems. This course will assist the student in making career choices and will serve as an entry level foundation course. (Prerequisite: READ 092 or READ 095 or passing score in reading on Basic Skills Test)

▲ **BUSI-116 Money Management and Personal Finance; 3 credits** The student will design and utilize a personal budget, create and evaluate a savings, investment, insurance and retirement program. The student will be able to use credit judiciously and make rational decisions in utilizing his purchasing power. In addition, the student will be able to identify the basic elements of will and estate planning. The student will have the opportunity to utilize current, user-friendly computer software and instructor-created exercises to apply the above concepts to their personal financial situation. Field trips may be required. (Prerequisite: MATH 012, MATH 015 or passing score in computation on Basic Skills Test)

▲ **BUSI-165 (t) Computer Applications in Business; 3 credits** This is an introductory level course for students with basic computer knowledge and provides a "hands-on" laboratory experience. The student will develop a working knowledge of the computer and work with a variety of software programs such as word processing, spreadsheets, database construction, and income tax preparation. The student will also learn programs such as graphic presentations, record keeping, and loan analysis, as well as learn how to conduct research on the Internet and communicate via email. Students will demonstrate the use of these computer software applications and

programs to interpret and analyze diverse economic and financial situations in their personal and professional lives. (Prerequisite: READ 092 or READ 095 or passing score in reading on Basic Skills Test)

▲ **BUSI-171 (t) E-Business Technologies; 3 credits** This course is designed for the student with prior computer knowledge and internet skills. This course will focus on the internet as a business and investment tool. Students will apply internet search techniques to develop a working knowledge of the internet and learn how the WWW applies to business operations and management. Students will learn how the internet affects our economy, use the WWW to view online banking, financing and investing tools, search information services (including, but not limited to, travel, news, government data, etc.), use web sites for career planning, business development and competitive shopping. The student will learn about global e-commerce and how it relates to lowering geographic barriers. **NOTE: This course is offered in Spring term only.** (Prerequisite: BUSI 165 or instructor approval)

▲ **BUSI-205 Principles of Management; 3 credits** The student will develop an insight into the basic concepts, functions and techniques of administrative management. The student will obtain specific knowledge of how to manage the planning, organizing, leading and controlling that is involved in any type of organization. Upon completion of the course, the student will have an understanding of the principles of good management. (Prerequisite: BUSI 105 or permission of instructor)

▲ **BUSI-206 Supervisory Management; 3 credits** The student will use management theories, concepts, principles and techniques as a foundation for acquiring an expanded knowledge of how to manage and supervise resources. This expanded knowledge of management will be applied in classroom case studies and practical exercises involving analysis and development of workable solutions to supervisory problems. It is recommended that you take BUSI 205 before BUSI 206. **NOTE: This course is offered Spring term only.** (Prerequisite: BUSI 105 or permission of instructor)

▲ **BUSI-221 Business Law I; 3 credits** The student will identify, define and describe contracts, agency, employment, wills, bailment, personal and real property.

▲ **BUSI-222 Business Law II; 3 credits** A continuation of BUSI 221, the student will identify, define and describe sales, security devices, partnerships, corporations, commercial paper and bankruptcy. (Prerequisite: BUSI 221)

▲ **BUSI-231 Human Resource Management; 3 credits** Students will recognize the basic terminology of Human Resource Management. They will identify the functional areas of HRM including job analysis, recruitment, selection, orientation, training, performance appraisal, benefits, labor relations, employee health and safety and diversity management. Students will identify the major elements of a Human Resource manual, perform a job analysis and construct a job description and job specification. Students will utilize basic computer software and internet to manage their course projects. They will practice communication skills necessary to perform Human Resource Management functions. (Prerequisite: BUSI 105 or permission of instructor)

▲ **BUSI-241 Small Business Management; 3 credits** Students will learn major considerations faced by an individual planning to start and run a small business venture in New Jersey. This course will cover the nature of self-employment, forms of ownership, franchising, financial planning, sources of capital, small business accounting/book-keeping/taxes, choosing a location, federal requirements and state regulations and business law as it relates to small business. (Prerequisite: BUSI 105 or permission of instructor)

▲ **BUSI-251 Global Business; 3 credits** In this introductory course, the student will study the nature, mechanics and functional management aspects of international business. The student will also survey the economic, financial and cultural environments in which international business operates. **NOTE: This course is offered in Spring term only.** (Prerequisite: BUSI 105 or permission of instructor)

▲ **BUSI-295 Special Project – Management; 1 to 3 credits** Students may choose to specialize or investigate some area in greater depth by selecting 1-3 credits in this individual learning course for the major. (Prerequisite: BUSI 105 and/or permission of instructor)

▲ **BUSI-299 Business Internship; 3 credits** The student will work in a job related to his or her program, participate in programs on

campus and complete an internship workbook based on the work experience gained. (Prerequisites: 6 credits of career studies and permission of instructor and Career Services Representative)

## Business Technology

- ▲ **BTEC-101 Computer Keyboarding; 3 credits** The student will master the alphanumeric keyboard and will key basic letters, memos, tabulations and reports using the computer. Upon completion of the course, the student will type straight copy at a minimum of 35 words per minute for five minutes.
- ▲ **BTEC-105 Introduction to Computer Keyboarding; 1 credit** The student will develop basic techniques and skills required to use the alphanumeric keyboard of a computer efficiently, achieving a minimum speed of 15 words a minute. **NOTE: This course is only offered online.**
- ▲ **BTEC-106 The ABCs of PCs; 1 credit** This introductory course is designed for the beginning PC user to become familiar with PC basic concepts and applications such as word processing, spreadsheeting and database management. **NOTE: This course is offered in the Summer term only.**
- ▲ **BTEC-115 Introduction to Windows; 2 credits** The student will learn the basic structure of Windows and the skills needed to work with Windows as well as how to use selected system-management applications. (Keyboarding computer skills required; computer experience essential)
- ▲ **BTEC-116 (t) Microsoft Office; 4 credits** The student will learn the basic terminology and operations of programs in the Microsoft Office software suite. Integration of files and multi-tasking activities in a networked environment will be emphasized. (Prerequisites: Typing skills required; Windows skills essential)
- ▲ **BTEC-120 Business Communication Skills; 3 credits** The student will develop a practical background in the English skills required to meet intensifying communication demands of today's office. The student will gain skills in grammar, punctuation, word usage and sentence structure needed to proofread and edit the originator's documents. (Prerequisite: A grade of "C" or higher in

ENGL 092, ENGL 095 or passing score in English on Basic Skills Test)

- ▲ **BTEC-130 Administrative Office Management; 3 credits** Students prepare to become a member of the office team by investigating the role of support staff personnel, by developing skills required to process office communications via telephone and mail and by acquiring basic human relations and technical skills necessary for a successful office career. **NOTE: This course is offered in Spring term only.** (Prerequisites or Corequisites: BTEC 102 and BTEC 120)
- ▲ **BTEC-141 EXCEL for Windows; 4 credits** The student will develop the basic information processing skills and techniques required to use EXCEL for Windows software effectively for personal and business use. The student will create, save, edit and print worksheets, charts and databases in a multi-user network environment. (Prerequisite: Computer and keyboarding skills essential)
- ▲ **BTEC-149 Introduction to Excel for Windows; 1 credit** In this introductory course, the student will learn the basics of building a spreadsheet, editing, calculating, formatting, saving, retrieving and printing. **NOTE: This course is only offered in the Summer term.** (Prerequisite: Computer experience and keyboarding skills desirable)
- ▲ **BTEC-158 Introduction to Microsoft Word for Window; 1 credit** This introductory course will teach the basics of Word for Windows. The student will learn how to create, edit, format and print basic documents as well as some of the more advanced features of the program. **NOTE: This course is offered in the Summer term only.** (Prerequisite: Keyboarding skills required)
- ▲ **BTEC-165 PowerPoint for Windows; 3 credits** The student will use Microsoft PowerPoint for Windows to develop skills and techniques required for creating high-impact business presentations in a multi-user environment. Planning, selecting, developing and designing effective business presentations will be emphasized. (Prerequisite: Basic computer experience required)
- ▲ **BTEC-185 Microsoft Access Database; 3 credits** The student will learn the fundamental concepts and procedures needed to create, edit, query and maintain an Access database with the use of tables, forms and reports. (Prerequisite: Basic computer experience.)

- ▲ **BTEC-231 Integrated Office Management; 3 credits** The student will develop problem-solving and decision-making skills that will be emphasized in office applications incorporating skills learned in prerequisite courses. The student will work in a multi-user network environment to produce a variety of business communications. **NOTE: This course is offered in the Spring term only.** (Prerequisites: A grade of "C" or higher in BTEC 102, BTEC 120, BTEC 130, BTEC 141 and BTEC 251; Prerequisites Corequisites: BTEC 165, BTEC 185). A grade of "C" or higher in BTEC 231 is required to graduate with an A.A.S. degree in Business Technology Systems.

- ▲ **BTEC-251 Microsoft Word for Windows; 3 credits** The student will develop the basic Microsoft Word skills and techniques required to create, format, edit and print a variety of business documents that include tables, mail merge and graphics in the networked environment. (Prerequisite: A grade of "C" or higher in BTEC 101 or 35 WPM on a five-minute timing)

- ▲ **BTEC-299 Business Technology System Internship; 1 to 3 credits** The student will work in a job related to his/her program, participate in programs on campus, and complete an internship workbook based on the work experience gained. (Prerequisite: Permission of instructor and Career Services Representative)

## Chemistry

- **CHEM-100 (SC) Principles of Chemistry; 4 credits** The student will be able to identify and interpret the basic concepts of inorganic chemistry including electronic structure of atoms, periodic behavior, compound formation, quantitative relationships between elements, compounds and equations, states of matter, acids and bases. The course is for students who have never had chemistry and who wish to continue into CHEM 101. (Prerequisite: MATH 025 or passing score in algebra on Basic Skills Test)
- **CHEM-101 (SC) General Chemistry I; 5 credits** The student will investigate the fundamental concepts of chemistry from a theoretical approach and participate in a laboratory program that demonstrates this theory. The subjects covered include atomic structure, chemical bonding, acids and bases, gases, solids and liquids and properties of solutions. The course content is designed for the science major who wishes

to transfer to a four-year institution.

(Prerequisites: HS Chemistry or a grade of "C" or higher in CHEM 100 or equivalent, and a grade of "C" or higher in MATH 151)

- **CHEM-102 (SC) General Chemistry II; 5 credits** A continuation of CHEM 101, the student will investigate the areas of kinetics, equilibrium, nuclear reactions, thermochemistry, electrochemistry, carbon chemistry and transition metal and organic chemistry using a problem solving approach to bring about understanding. (Prerequisite: MATH-151 and a grade of "C" or higher in CHEM-101)
- **CHEM-116 (SC) Chemistry in Life; 4 credits** This chemistry course for non-science majors will focus on the role chemistry plays in maintaining and improving our quality of life. Topics include environmental issues such as air pollution, acid rain and recycling; the study of energy sources including nuclear power; and health issues such as nutrition and world hunger. The accompanying lab involves the study of common items found in everyday life. (Prerequisite: MATH 012 or MATH 015 or passing score in computation on Basic Skills Test)
- **CHEM-117 (SC) Introduction to Marine Chemistry; 4 credits** Lecture, field and laboratory work all focus on analyzing the normal cycles that occur in the marine environment throughout the year and how environmental pollution effects these cycles. Laboratory work will focus on learning techniques that will then be applied to analyzing the actual conditions present in our local marine waters. (Prerequisite: CHEM 100 or high school chemistry)
- **CHEM-136 (SC) Introduction to Inorganic, Organic and Biological Chemistry; 4 credits** The student will consider selected concepts from inorganic, organic and biological chemistry which will be applied to allied health and biological fields. Skills will be developed in a laboratory program which enhances topics under consideration. The program is designed for students who have had no previous chemistry course.
- ▲ **CHEM-203 Organic Chemistry I; 5 credits** Students will apply many concepts from general chemistry to a study of organic chemistry. They will be able to name, draw, predict products, interpret spectra for, synthesize and explain reaction mechanisms for hydrocarbons and halogenated hydrocarbons, alcohols, ethers and epoxides. The stereo-chemistry of compounds and reactions will be studied. Labs will emphasize prepa-

ration, isolation and identification of organic compounds using modern laboratory instrument techniques. (Prerequisite: A grade of "C" or higher in CHEM 102)

- ▲ **CHEM-204 Organic Chemistry II; 5 credits** A continuation of CHEM 203, students will extend their studies into topics including aromatic hydrocarbons, amines, carboxylic acid, aldehyde, ketone and carbanion chemistry. (Prerequisite: A grade of "C" or higher in CHEM 203)
- **CHEM-235 (SC) Fundamentals of Organic and Biological Chemistry; 5 credits** Students will be able to name, draw, predict products and write reaction mechanisms for organic compounds. Organic concepts will be extended to carbohydrates, lipids and protein structure, digestion and metabolism, with emphasis on understanding life processes. Laboratory skills will be developed, enhancing textbook coverage, and will include applications of polarimetry, titrimetry, chromatography and ultraviolet and visible spectroscopy. (Prerequisite: HS Chemistry or a grade of "C" or higher in CHEM 100 or equivalent)
- **CHEM-236 (SC) Biochemistry; 5 credits** Upon completion of this course the student will be able to recognize and draw the structure and state the nature of the biochemicals important to life (carbohydrates, lipids and proteins), describe in detail the metabolic pathways that generate them and release energy from them. The student will also be able to describe and draw the structure of the gene molecules (RNA & DNA) and describe their metabolism and their role in protein synthesis. Basic concepts will be reinforced with appropriate laboratory experiences. (Prerequisite: CHEM 136 or CHEM 235 or CHEM 203 or equivalent)
- ▲ **CHEM-295 Special Project – Chemistry; 1 to; 4 credits**
- ▲ **CHEM-299 Chemistry Internship; 1 to 6 credits** Students will work in an internship related to chemistry and complete internship learning objectives under faculty supervision. Approval of instructor and Division Chairperson required. (Prerequisite: CHEM 100)

## Chinese

- **CHNS-101 (HU) Elementary Chinese Communication I; 4 credits** This course is designed for students with no previous knowledge or very limited knowledge of the Chinese language. Emphasis will be on

acquiring conversational and comprehension skills, using practical and interesting situational materials that will stress both language and culture. Grammatical patterns and syntax will be introduced with the aim that students read and write Pinyin Chinese. (This course is not open to native Chinese speakers or to students with more than two years of Chinese in high school, except by instructor approval).

- **CHNS-102 (HU) Elementary Chinese Communication II; 4 credits** Students will build upon skills acquired in the first semester course and will be able to express themselves in a variety of more complex situations in Chinese. (Prerequisite: A grade of "C" or higher in CHNS 101 or instructor approval)

## Cinematography

- **CINE-105 (HU) Film Appreciation: Motion Picture/Art; 3 credits** The student will view a wide range of short and feature length films and be able to identify the major film theories, the basic techniques of filmmaking and the basic characteristics of the film medium as art and entertainment.

## Communication Media

- **COMM-101 (HU) Communication; 3 credits** Communication will introduce the student to the broad, dynamic, relevant and vital nature of the field of communication, require that students practice communication skills (reading, writing, speaking and listening) and provide the opportunity for students to apply course concepts to current related topics and to synthesize outside sources relevant to course content. Provocative, interdisciplinary learning materials and teaching techniques are used to help students find coherence in their education and counter the trends of specialization and self-preoccupation. (Prerequisite: ENGL 095 or passing score in English on Basic Skills Test)
- **COMM-102 (HU) Communication Media; 3 credits** Students will examine the historical, technological, economic, organizational and social aspects of communication mediated by technology. The course will emphasize the convergence of conventional mass media with new forms of information services and provide knowledge, skills and per-

spectives to help prepare students to thrive as consumers and employees in the rapidly changing information society.

- **COMM-106 (HU) Introduction to Public Relations; 3 credits** Students will evaluate their potential success in the field of public relations through a broad examination of the topic including the definition, history, function, tools and techniques. Students will investigate the characteristics of the practitioner, the organizational structures and the variety of job opportunities, and they will practice the necessary basic skills and meet practicing professionals. **NOTE: This course is offered in Fall term only.** (Prerequisites: ENGL 121, COMM 101, COMM 102)
- **COMM-115 (HU) Audio in Media; 3 credits** Students will develop proficiency in making audio recordings of various types and in varying acoustic environments. Students will study the nature of sound and the structure of acoustic sound perception. In addition, students will be able to create audio productions with both technical and aesthetic quality in both analog and digital formats.
- ▲ **COMM-216 Advanced Digital Audio/Musical Recording; 3 credits** This course explores music recording and editing techniques in a digital environment. Students will learn contemporary audio recording and editing techniques through in-class demonstrations and hands-on lab exercises on a digital audio multitrack workstation. (Prerequisite: COMM 115 with a minimum grade of "C").
- ▲ **COMM-295 Special Project - Communication Media; 1 to 6 credits** Students will design a project of advanced study. Students must have completed previous course work in the subject area and must meet with an appropriate instructor before registration.
- ▲ **COMM-299 Communication Media Internship; 1 to 6 credits** Students will practice skills in the use of communication media in a real world experience. They will work with an experienced practitioner who will guide and supervise their progress. This course may be repeated for credit. (Approval of instructor and Career Services Representative is required)

## Computer-Aided Drafting and Design

- ▲ **CADD-121 Engineering Graphics with CAD; 4 credits** This course will provide the student with a complete engineering graphics curriculum utilizing freehand sketching, manual/board drafting and Computer-Aided Drafting. The topics will include graphic size and shape development, orthographic projection, sectional and auxiliary views, dimensioning and tolerancing, fasteners and the preparation of a set of working drawings. (Prerequisite or Corequisite: A grade of "C" or higher in DRFT 106 or permission of department)
- ▲ **CADD-211 Intermediate Computer Aided Drafting; 3 credits** Students will learn to efficiently use a computer-aided drafting system to create orthographic drawings of complex parts. Students will be introduced to using a computer-aided drafting system to produce floor plan drawings and basic three-dimensional components. This course assumes that students understand the concepts of engineering graphics. (Prerequisite: A grade of "C" or higher in CADD 121 or ARCH 151 and/or previous equivalent industrial experience.)
- ▲ **CADD-212 Computer-Aided Architectural Drafting and Design; 4 credits** This course will provide the student with the skills and knowledge necessary to utilize a Computer-Aided Drafting (CAD) system in the preparation of architectural drawings. Drawings will include floor plans, framing plans, elevations, site plans and building and wall sections. (Prerequisite: A grade of "C" or higher in CADD 211)
- ▲ **CADD-214 3-D Modeling with CAD; 4 credits** The student will utilize multiple viewports, work in either model or paper space, to create, modify and display 3-D drawings, models and renderings. The student will become familiar with advanced operations and procedures, within AutoCAD, aiding in production of engineering drawings in a timely, efficient and accurate manner. The student will also learn to incorporate AutoLISP routines into AutoCAD, thus gaining access to time-saving commands and procedures otherwise unavailable. (Prerequisite: A grade of "C" or higher in CADD 211)
- ▲ **CADD-220 Computer-Aided Rendering & Animation for Engineers, Architects &**

**Designers; 4 credits** The student will be presented with a comprehensive course in 3 D rendering and animation using CAD. The student will acquire the skills necessary to create photorealistic images and animations. The focus of the assignments will be multidisciplinary, including typical engineering, design and architectural applications. (Prerequisite: CADD 211 or CADD 212, or permission of instructor)

- ▲ **CADD-225 3D Architectural CAD; 4 credits** The student will be presented with a comprehensive course in 3D Architecture. The student will acquire the skills necessary to create photorealistic images, animations and construction documents. The assignments will focus on typical interior design and architectural applications. Students will create buildings in 3D using a dedicated 3D architectural package. Integrated and object-oriented 3D CAD is becoming the mainstream design and documentation tool for architectural practices. Traditional drafting-based systems are being phased out in favor of 3D model-based solutions. (Prerequisites: Any CADD course or computer literacy)
- ▲ **CADD-295 Special Project – Computer-Aided Drafting And Design; 2 to 6 credits**
- ▲ **CADD-299 Internship in Computer-Aided Drafting And Design; 2 to 6 credits**

## Computer Science

- ▲ **COMP-105 Introduction to the Internet; 1 credit** The purpose of this course is to introduce the student to the component of the Internet known as the World Wide Web (Web/WWW). The focus of the course is on the hands-on usage of various resources available through the Web. The student will become familiar with using a Web Browser and, with some of the search engines, as a means to finding information on the Web. The student will also learn the essentials of communicating with other users on the Web.
- **COMP-116 (IT) Introduction to Digital Programming; 3 credits** This course is for students who have not had any prior computer programming courses. Students will obtain first-hand experience in computer programming by analyzing problems, designing solutions and writing programs in Visual Basic programming language on a microcomputer. They will acquire a working knowledge of the fundamental tools of computer programming needed for further

progress: problem organization and analysis, coding diagnosis and testing. They will be able to use a fairly extensive set of Visual Basic instructions and commands, and apply them to create solutions to problems in the fields of business or mathematics/science. (Prerequisite: MATH 021 or passing score in algebra on Basic Skills Test)

▲ **COMP-126 Computer Logic and Design; 3 credits** This course provides the student with an introduction to computer systems. The topics include computer architecture and data representations, computer programming logic and coding, operating systems, application software and Web design concepts. (Prerequisites: MATH 021 or passing score in algebra on Basic Skills Test or instructor approval and matriculation in the Computer Science Program)

■ **COMP-128 (IT) BASIC Programming; 1 credit** The student will be able to analyze, develop, code and execute solutions for a variety of problems using the BASIC programming language.

● **COMP-129 (IT) Computer Literacy; 3 credits** This course is primarily intended for non-Computer Science majors. It will consist of a lecture component and computer instruction (Lab) component. The computer instruction (Lab) objectives are designed to provide the student with practical skills in using Microsoft Windows XP and Microsoft Office 2003 (Word 2003, Excel 2003, PowerPoint 2003 and Access 2003) software. Through the Lecture component, the student will acquire a basic understanding of data processing and computer system concepts, focusing primarily on microcomputer hardware and software.

▲ **COMP-132 Structured Programming Using C++; 3 credits** The student will be able to analyze a variety of real-world problems, develop algorithms to solve those problems and code solutions using the ANSI/ISO C++ language. Specifically, the student will be able to write structured program code typical of generalized application problems. Programming topics will include data types, operations and expressions, control structures, functions, arrays, pointers, object structures and input/output handling. Students will be able to debug and edit their program code using compiler diagnostics. (Corequisite: COMP 126)

**COMP-135 Computer Architecture Using Assembly Language; 3 credits** Students will acquire the fundamentals of computer

architecture from a programmer's perspective by learning assembly language, the interface between hardware and software. Designed for students with previous high-level programming language experience, this course enables the students to write code that provides a good, intuitive model of the computing environment. Concepts covered will be data representation, memory organization, the instruction cycle, addressing modes, exception handling and interrupts. Programs will be developed using the popular INTEL based architecture. (Prerequisites: COMP 126 or COMP 132)

▲ **COMP-137 Programming for Engineers; 3 credits** This course is designed for engineering students with no previous high-level programming language experience. The students will learn how to analyze scientific problems and code solutions to these problems using the ANSI/ISO Standard C++ language. (Prerequisite: MATH 153 or MATH 161)

▲ **COMP-140 Designing/Developing Web Sites; 3 credits** This course will teach students how to build Web sites. Topics to be studied include lists, tables, frames, style sheets, image mapping and animation. Students will learn how to perform customer interaction with forms and special controls. Topics explored are examining Web publication and security issues, and integrating Office documents into Web sites. Current Web-based software tools are used in the course, i.e., Microsoft FrontPage.

▲ **COMP-145 Introduction to UNIX; 3 credits** Students will be introduced to the fundamentals of the UNIX operating system, commands and tools. Students will become familiar with the UNIX file system structure, editors and shell programming. Students will learn networking in UNIX, as well as basic system administration. Students will be able to contrast and compare UNIX with LINUX.

▲ **COMP-166 WEB Design Using HTML; 3 credits** Students will learn the most important topics of HTML including creating multimedia Web pages with hypertext links, tables, frames, forms and cascading style sheets. Students will learn the basics of XML including creating XML documents and binding data. Students will design and develop wireless web pages using XHTML and WML.

▲ **COMP-171 Programming I; 3 credits** The student will be able to analyze a variety of problems, develop algorithms to solve those problems and code solutions using JAVA.

The fundamentals of software development, which includes logic, control structures, arrays, methods, classes, documentation techniques, testing, and debugging are covered. Assignments give students hands-on experience to design, write, test, debug and edit their program code using an integrated development environment. (Corequisite: COMP 126)

▲ **COMP-175 Game Design and Development; 3 credits** This course teaches the student the fundamental concepts needed to design and develop a game. The focus is on the development process and the documentation required to successfully implement a game, including the creation of a game treatment and game spec. Rules, play mechanics, balance, storytelling, interface design, and team management, and differentiation between genres are also covered.

▲ **COMP-185 Programming in Visual Basic.NET; 3 credits** This course will teach the student how to program in Microsoft Visual Basic.NET. The student will use practical problems to learn the capabilities of building object oriented applications in a graphical environment. Both Windows and Web based ASP applications are covered, as well as ADO.NET for the integration of databases. (Prerequisite: COMP 171)

▲ **COMP-225 Operating Systems Technology; 3 credits** Students will acquire an understanding of the role that an operating system has in the computing environment. The student will have hands-on experience and assignments on major operating systems. Topics will include process management, device management, file structures, utilities, performance evaluation and networking. (Prerequisite: COMP 135)

▲ **COMP-226 Systems Analysis and Design; 3 credits** Students will acquire working knowledge of the principles, methods and procedures required to develop a computerized information system. They will be able to identify, describe and perform the manifold tasks associated with a computer system development particularly in systems, planning, management and design implementation and support. (Prerequisite: COMP 126)

▲ **COMP-228 Data Structures; 3 credits** This course will introduce students to the use of various data structures found in Computer Science. The data structures to be studied include arrays, lists, stacks, queues, trees, graphs, and tables. For these

structures, generic operations and their efficiency will be examined, as well as specific applications for these operations. Recursive processes will be introduced as well as searching and sorting techniques. (Prerequisites: COMP 135 and COMP 271)

- ▲ **COMP-233 Object Oriented Programming Using C++; 3 credits** This course will introduce students to the concepts and techniques of object oriented programming using the ANSI/ISO Standard C++ language. Topics to be studied include classes and objects as encapsulation tools, design features for objects, operator overloading, the use of dynamic memory, inheritance and hierarchies among classes, virtual functions supporting polymorphism, exception handling, and the standard template library. (Prerequisites: COMP 126 and COMP 132)
- ▲ **COMP-245 Internet Programming Using JAVA; 4 credits** The purpose of this course is to provide the student with the ability to develop applications that will reside on the Internet. The student will construct Internet documents through the JAVA language. The course will examine the syntax and semantics of the JAVA language used to build Internet applications. The student will develop the skills necessary to understand and implement the logical construction of JAVA software. The course will include projects that the student will use to demonstrate the integration of the course material into a practical Internet application. (Prerequisite: COMP 233)
- ▲ **COMP-265 Spreadsheets Using Excel; 3 credits** The course will teach the students all the topics of Microsoft Excel, including developing worksheets, creating charts, coding functions, programming and running macros, creating data tables, integrating Excel with other programs, publishing Excel data on the World Wide Web and using Visual Basic Code.
- ▲ **COMP-266 Data Base Using Access; 3 credits** This course will teach students basic and advanced topics of Microsoft Access, including programming and running macros, advanced queries and custom forms, integrating Access with other programs, publishing objects on the World Wide Web and using Visual Basic Code.
- ▲ **COMP-267 Client Side using JavaScript; 3 credits** The student will gain a working knowledge of the Web-based scripting language JavaScript. This course provides the structure to allow students to design, code and execute JavaScript applications in a lab

environment. (Prerequisites: COMP 166 or HTML and COMP 171 or an approved procedural language)

- ▲ **COMP-268 Server Side Scripting; 3 credits** The student will gain a working knowledge of JavaServer Pages to develop server-side applications. This includes using server-side software to develop JavaServer Pages and servlets, working with sessions and cookies, using JavaBeans, and accessing databases from web pages. (Prerequisites: COMP 166 or HTML and COMP 171 or an approved procedural language)
- ▲ **COMP-269 Database Concepts; 3 credits** This course is intended to teach the student how to analyze data and effectively design databases to store such data. Relational database design, implementation, and administration are covered. Design concepts include entity relationship modeling and normalization. Implementation and administration are covered through basic and advanced SQL. A relational database management system and drawing software are used in a laboratory environment to teach the practical application of the theories covered. (Prerequisite: COMP 126 or equivalent experience)
- ▲ **COMP-271 Programming II; 3 credits** This course continues the development of problem solving, logical thinking and object oriented programming techniques using JAVA. Topics and techniques covered include design features from objects, classes and objects as encapsulation tools, inheritance and hierarchies among classes, polymorphism, exception handling and GUI/event driven programming. Assignments give students hands-on experience to design, write, test, debug and edit their program code using an integrated development environment. (Prerequisites: COMP 126 and COMP 171)
- ▲ **COMP-275 Game Programming; 3 credits** This course introduces the student to programming concepts unique to the development of games. The emphasis is on creating programs with 3D effects. Topics include windows programming, texture mapping, lighting, sound, and input. ((Prerequisite: COMP 132)
- ▲ **COMP-276 Game Level Design; 3 credits** This course will enable a student to use an existing game engine to modify an original game, producing new levels and characters. Emphasis is on the skill set necessary to create a game world from a conceptual design. Students will learn how to create

and use design documents and diagrams as well as implement them using the game engine. (Prerequisite: COMP 132)

- ▲ **COMP-296 Advanced Software Project; 3 credits** This course is a capstone course for students enrolled in the Computer Science program. Students conduct analysis and research resulting in the architecture, design and implementation of an information system. Students develop detail descriptions of the data stores, program structures and user interfaces of the system. Projects give students hands-on experience to perform the analysis, design, coding and testing of software created. (Prerequisite: COMP 226 and (COMP 271 or COMP 267))
- ▲ **COMP-295 Special Project – Computer Science; 1 to 6 credits** Prerequisites: COMP 126 and programming language)
- ▲ **COMP-299 Computer Science Internship; 3 credits** This course will allow the student to gain practical work experience by participating in a computer science career-related position with an approved company or institution. (Prerequisite: 12 credits in computer science courses and matriculation as a Computer Science major, permission of instructor and Career Services Representative)

## Criminal Justice

- **CRJU-101 (SS) Introduction to Criminal Justice System; 3 credits** The social and institutional response to crime is discussed topically in this interdisciplinary survey of the American Criminal Justice System. Students are required to formulate views on controversial issues and concerns such as plea bargaining, the exclusionary rule, the insanity defense and the death penalty. This course is a prerequisite for all 200 level courses in the Criminal Justice program.
- **CRJU-125 (SS) Police Role in Community; 3 credits** The student will use various methods to analyze the police role in the United States. Research and experimentation on police, conducted in the past twenty years, is reviewed and discussed. Innovations in policing from Team Policing to Community Policing are also described and analyzed.
- ▲ **CRJU-126 Introduction to Public Administration; 3 credits** Students will analyze the various approaches to public administration. Students will compare various divisions of government and

administration and how administrators manage their particular functions on a federal, state, county and municipal level.

■ **CRJU-127 (SS) Introduction to**

**Corrections; 3 credits** The student will gain an understanding of historical and contemporary correctional practices. Theoretical concepts of the criminal sanction will be discussed, along with institutional rehabilitation and community-based corrections. This course is a follow up to CRJU 101.

▲ **CRJU-131 Introduction to Private Security;**

**3 credits** The growth and expansion of career opportunities in the private security industry will be reviewed. Students will learn practical applications of physical security. In addition, concerns of retail security, employee theft and security law will be discussed.

■ **CRJU-151 (SS) Introduction to**

**Criminology; 3 credits** Students will be introduced to the study of crime and criminal behavior. This is the only course in the program which studies the criminal rather than society's response to crime. Three different methods of measuring crime will be described; the five schools of criminological theory will be reviewed; and several different crime problems in America will be discussed.

▲ **CRJU-202 Criminal Investigation; 3 credits**

Students will attain a general knowledge of the role and responsibilities of the criminal investigator during the criminal investigation process. The initial crime scene investigation, interrogation techniques and observational skills will be discussed and evaluated. Particular types of criminal investigations, such as homicide, sexual assault and robbery, will be examined. (Prerequisite: A grade of "C" or higher in CRJU-101)

▲ **CRJU-204 Forensic Investigation; 3 credits**

Forensic Investigation constructs a bridge between basic criminal investigation and forensic science. The course will take forensic evidence, amplify it, collect it, process it and bring it into a Forensic Laboratory. Scientific methods will be explained and evidence examination techniques will be explored. (Prerequisite: A grade of "C" or higher in CRJU 101)

▲ **CRJU-205 Community Corrections;**

**3 credits** Students will review the various non-custodial alternatives to the correctional system. Topics will include traditional community-based alternatives to prison such as probation and parole. Newer community-based alternatives such as boot

camps, day reporting, forfeiture, intensive supervision and technology-based supervisions will also be examined in the course. (Prerequisite: CRJU-101)

▲ **CRJU-225 Police Organization and**

**Administration; 3 credits** Students will be able to identify and compare the organizational models, authority structures and major functions of law enforcement on a federal, state, county and municipal level. They will be able to define the major administrative problems involved in assigning responsibility and delegating authority in the areas of recruitment, promotion, training and personnel administration. (Prerequisite: A grade of "C" or higher in CRJU 101)

▲ **CRJU-226 Criminal Law; 3 credits**

Students will be able to define and explain the basic elements of a crime. They will be able to apply these basic elements to crimes against person and property. Students will compare fundamental legal concepts to The New Jersey Criminal Code. (Prerequisite: A grade of "C" or higher in CRJU 101)

▲ **CRJU-229 Criminal Due Process; 3 credits**

Due process is the essence of justice in the American Criminal Justice System. Students will be introduced to the significant constitutional cases which define due process of law in the justice system. Important cases will be read and analyzed. Historical trends in constitutional law will be reviewed. Students will complete the course with a fundamental understanding of the impact of due process issues on the operation of the American Criminal Justice System. (Prerequisite: A grade of "C" or higher in CRJU 101)

▲ **CRJU-235 Loss Prevention; 3 credits**

Students will use techniques of loss prevention in a number of practical assignments. These include the completion of a security survey, robbery checklist, fire safety plan and bomb threat policy. The course also includes visits to observe the latest in security hardware. All students will complete a group project where loss prevention techniques will be implemented in a security design. (Prerequisite: A grade of "C" or higher in CRJU 101)

■ **CRJU-236 (SS) Counter Terrorism;**

**3 credits** The course begins by examining the political and historical roots of international terrorism. The structure and dynamics of international and domestic terrorist groups will be described. Counterterrorism strategies

and the responses to the terrorist threat in the United States will be a major focus of the course. September 11, 2001 has changed the perception of the dangers faced by the country. The creation of the Office of Homeland Security and the US Patriots Act has altered the role of the federal government in the country's response to internal dangers. Students need to be made aware of changes in the relationship between local and federal responses to national threats. Enhanced intelligence, new security techniques and devices, as well as the organization of agencies to more effectively respond to the terrorist threat will be an important part of the course. Finally, new career opportunities have been created that need to be understood by current students. (Prerequisite: CRJU 101)

■ **CRJU-245 (SS) Delinquency and Juvenile**

**Justice; 3 credits** The course will examine the social and behavioral causes of delinquency. In addition, the historical background, legal rights and procedural problems of the juvenile justice system will be reviewed. Students will be expected to: identify and describe four separate theories of delinquency, distinguish the practices and procedures of the adult justice system from the juvenile justice system and explain recent reforms and innovations in delinquency prevention, punishment and treatment. (Prerequisite: A grade of "C" or higher in CRJU 101)

▲ **CRJU-295 Special Project – Criminal**

**Justice 1-3 credits** Students will complete a research project. Limited to students who need 1-3 credits to graduate. Faculty permission required for registration. (Prerequisite: A grade of "C" or higher in CRJU 101)

▲ **CRJU-299 Criminal Justice Internship;**

**3 credits** Students will work 120 hours for a local justice agency. Internships are available with several local police departments, the county jail, probation, New Jersey Department of Corrections and other agencies. Commissioned police officers may serve an internship with the County Prosecutor's Office. (Prerequisite: 30 credits to include 12 credits of Criminal Justice courses, permission of the instructor and Career Services Representative and a grade of "C" or higher in CRJU 101)

## Culinary Arts

▲ **CULA-105 Introduction to Culinary Arts; 2 credits** The course explores the history of the food service industry and the development of the professional chef. The personal and educational resources needed to become a professional chef will be discussed. Cultural diversity will be recognized and discussed as a key component to the success of any food service operation. Students will become familiar with the library and how to do research and enhance their study skills. (Prerequisite: READ 095 or passing score in reading on Basic Skills Test)

▲ **CULA-107 Culinary Math; 1.50 credits** Math fundamentals, as they relate to the food industry, will be intensively reviewed. Multiplication, division, fractions, percentages, ratios, decimals and other computations will be performed utilizing industry-based problems. The student will perform recipe conversions, menu pricing, weights and measures, recipe costing, and extension computations. (Prerequisite or Corequisite: MATH-015 or passing score in computation on Basic Skills test.)

▲ **CULA-111 Basic Food Skills I; 3 credits** The students will gain knowledge of the principles of food preparation through classroom instruction and laboratory experiences. Emphasis will be placed on knife skills, measuring, identification of tools and equipment, and terms and concepts. Students will prepare stocks, soups and sauces as the foundation for cooking competencies needed in more advanced food preparation courses. (Prerequisites: READ 095 and MATH 015 or passing scores in reading and computation on Basic Skills Test; and a grade of "C" or higher in CULA 115)

▲ **CULA-112 Basic Food Skills II; 3 credits** The students will build upon the information learned in Basic Food Preparation Skills I and increase their knowledge of food preparation through classroom instruction and laboratory experiences. Emphasis will be placed on rice, pasta and starch, legumes, vegetables, fruit and nuts. This course is a foundation course for cooking competencies needed in more advanced food preparation courses. (Prerequisites: CULA 115 and a grade of "C" or higher in CULA 111; MATH 015 and READ 095 or passing scores in computation and reading on Basic Skills Test)

▲ **CULA-115 Sanitation & Safety; 1.50 credits** Students will obtain an understanding of

standards for sanitation that are applicable to all aspects of food service and food industry operations. The course covers microbiology and foodborne illnesses, sanitizing equipment and facilities, pest control, HACCP and protecting food during preparation, storage and service. An extensive unit on safety will be included. Students can earn both the New Jersey State Department of Health Food Service Managers Sanitation Certificate and the SERV-SAFE certificate upon successful completion of this course. (Prerequisite: A grade of "C" or higher in READ 095 or passing score in reading on Basic Skills Test)

▲ **CULA-125 Breakfast Cookery; 2 credits** The students will get hands-on experience in the production of breakfast items. They will develop preparation and timing skills. The preparation experience will include: egg cookery (including omelet preparation), cereals, breakfast meats, quick breads, dairy and cheese. Presentation of these items on a plate and buffet line will be emphasized. (Prerequisites: CULA 111, CULA 112 and CULA 115)

▲ **CULA-127 Lunch Cookery; 3 credits** The student will apply the skills learned in basic food preparation skills classes to the preparation of lunch foods from the following categories: sandwiches, salads and salad dressings, pasta, hot lunches and vegetarian dishes. The student will have to show proficiency in knife skills, sanitation and safety, and mise en place while working in the kitchen. (Prerequisites: CULA 111, CULA 112 and CULA 115)

▲ **CULA-131 Nutrition in the Culinary Arts; 3 credits** This course covers the basic principles of nutrition as they apply to the culinary arts profession. The function, digestion, absorption, transportation and metabolism of the major nutrients (carbohydrates, proteins and fats) and the minor nutrients (vitamins, minerals and water) are discussed. Topics including: food labeling, the Food Guide Pyramid, common diseases related to nutrition, food allergies, vegetarianism and current diet trends will be presented. The student will be able to develop appropriate ingredient substitutions and healthy cooking techniques. Students will learn to apply healthy cooking techniques into today's restaurant menu. Lecture and lab application will be utilized. (Prerequisite: CULA 107, CULA 111, CULA 112, CULA 115; Corequisite: CULA 105)

▲ **CULA-133 Storeroom/Purchasing Operations; 2 credits** The student will learn about the storeroom operations of purchasing, receiving, storage, requisitioning and record keeping. Through lecture, demonstration and hands-on experience in the lab the students will learn product identification, packaging, seasonality and availability, freshness and the quality factors of maturity and ripeness, appropriate culinary uses, taste, texture and other selection points. The student will also be involved with the developing of stock and inventory control. They will learn about different ordering methods: bidding, phone quotes and contracts. (Prerequisites: MATH 012 or MATH 015 or passing score in computation on Basic Skills Test, READ 092 or READ 095 or passing score in reading on Basic Skills Test)

▲ **CULA-141 Dining Room I; 2 credits** This course is designed as an overview of service. The students will develop professional server skills and be able to efficiently serve a meal. The students will gain hands-on experience in serving in the dining room. (Prerequisites: READ 095 and MATH 015 or passing scores in reading and computation on Basic Skills Test)

▲ **CULA-151 Baking Skills I; 3 credits** This course is designed to give the student the ability to demonstrate an understanding of baking, ingredients, terminology, tools and equipment, formulations, techniques and principles. The student will prepare a variety of baked goods including: quick breads, breads and rolls, pies, cakes and cookies and pate a choux, puff pastry and filo dough products. (Prerequisites: CULA 107, CULA 115 and CULA 131)

▲ **CULA-241 Dining Room II/Wines; 3 credits** The student will further develop his/her service skills by serving dinner in the dining room. The student will also learn about the major wine growing regions of the world and the different wines that each produces. He/She will learn to identify quality of wine by interpreting the label. (Prerequisite: CULA 141)

▲ **CULA-251 Patisserie; 3 credits** This course is designed to expand on the principles and techniques learned in Baking Skills. The student will prepare puff paste and choux paste products, cakes, custards, puddings, mousses, soufflés, French and Italian pastries, petit fours and cookies, tarts, flans, fruit cakes, strudels, cheese cake and frozen desserts. The student will begin to develop skills in cake decorating

and finishing. (Prerequisites: CULA 115 and a grade of "C" or higher in CULA 151)

▲ **CULA-252 Advanced Baking Skills;**

**3 credits** This course is designed to meet the needs of the student who is pursuing pastry arts as a possible career goal. The student will learn through lecture, discussion and hands-on production, a variety of yeast doughs, including: Artisan breads, decorative breads, international breads, flatbreads and starters. The student will also prepare strudel, galettes and meringues. (Prerequisites: CULA 115 and CULA 151)

▲ **CULA-253 Advanced Patisserie; 3 credits**

The student will gain knowledge of the principles of advanced Patisserie by working with materials and products at an advanced level. Wedding cakes, Petit fours, Decorative icings and Regional Specialties are covered. (Prerequisites: CULA 151, CULA 251, CULA 252)

▲ **CULA-254 Confectionary and Showpieces;**

**3 credits** During this course the student will become proficient at tempering chocolate, working with Pastillage, pulled and blown sugar. Demonstration on filled chocolates, centerpieces and advanced techniques are also included for student practice. (Prerequisites: CULA 151, CULA 251, CULA 252, CULA 253).

▲ **CULA-255 Advanced Pastry Arts; 3 credits**

In this course, students will apply skills from all Pastry Arts classes in the preparation of a dessert buffet. Students will also be introduced to frozen desserts, souffles, special needs baking, and whole grain baking. (Prerequisites: CULA 151, CULA 251, CULA 252, CULA 253, CULA 254)

▲ **CULA-264 Garde Manger/Charcuterie;**

**3 credits** Garde Manger refers to cold kitchen preparation. The student will prepare canapés, hot and cold hor d'oeuvres, appetizers, pates, galantines, terrines and salads. Charcuterie refers to the art of sausage making. Techniques of brining, curing and smoking will be discussed. The student will learn through lecture, demonstration and hands-on application of preparation techniques. The students will perform sensory evaluation of the finished product. (Prerequisites: CULA 125, CULA 127 and CULA 261)

▲ **CULA-266 Meat and Seafood ID; 3 credits**

The students will learn through lecture, demonstration and hands-on experiences how to butcher meat to portion control cuts.

The student will understand how meat is graded, inspected and aged. They will be made aware of the bone and muscle structure of beef, lamb, pork and poultry. Proper handling of these items will be stressed. The student will perform yield test analysis as a

part of the learning experience. The student will also learn identification, handling and butchering techniques for finfish, shellfish and variety fish. There will be lecture, demonstration and hands-on application of fish cookery principles and techniques. Presentation will be emphasized. (Prerequisites: CULA 125, CULA 127 and CULA 133)

▲ **CULA-267 American Regional Cuisine;**

**3 credits** This course is designed to provide the student with respect for cultural diversity in foods. Food, food preparation techniques, tools and equipment, menu patterns and culture of American regions will be emphasized. The students will prepare selected recipes from the following areas: New England, Middle Atlantic, Upper South, Deep South, Great Lakes, Midwest, Southwest, Mountain States, Pacific Northwest, Hawaii and Alaska. (Prerequisites: CULA 125 and CULA 127).

▲ **CULA-271 Advanced Classical Cuisine;**

**3 credits** The student will apply all of the food preparation skills, theories and techniques learned in all of the food preparation classes to an actual setting. The student will prepare and plate the restaurant menu to patrons. This is the culmination of all the food preparation courses and signifies that the student is now prepared to work in the field. This course includes the preparation of both French and Italian foods. (Prerequisites: CULA 125, CULA 127, CULA 261; Corequisite: CULA 264)

▲ **CULA-272 Advanced Dining Room**

**III/Spirits; 3 credits** This course is the culmination of all of the students' efforts in the previous dining room courses. The student will be responsible for setting up the dining room mise en place, greeting and seating guests, taking food and beverage orders, filling the orders, serving dessert, calculating the guest check, handling the cash transaction and farewell to the guest. There will also be classroom discussion of distilled spirits. The student will be held to high professional standards of performance. Emphasis will be placed on sanitation and safety in the dining room. (Prerequisites: CULA 141 and CULA 241)

▲ **CULA-273 (d) Principles of International Cuisine; 2 credits**

Students will acquire both the knowledge and understanding of cuisines around the world. Students will study international countries and regions. Areas of study will be selected as to their culinary popularity and influence on world cuisine. Each country/region covered will describe food customs, common ingredients and culinary specialties from that area. Students will learn the basis for diverse food preferences around the globe, discuss how the cuisines of other cultures have been encultured into American cuisine and apply their knowledge of international cuisines into recipe development. Students will be encouraged to utilize the foods from around the world and create their own dishes. (Prerequisites: CULA 151 and CULA 261; Corequisite: CULA 274)

▲ **CULA-274 International Cuisine; 2 credits**

Students will gain knowledge of and respect for cultural diversity in foods. Food, food preparation techniques, tools and equipment, and menu patterns of international cuisine will be learned and applied. The students will prepare selected international recipes from the following areas: Asia, South and Central America, Europe, Africa, and the Middle East. (Prerequisites: CULA 111, CULA 112, CULA 115, CULA 133, CULA 125, CULA 127; Corequisite: CULA 273)

▲ **CULA-295 Special Project - Culinary Arts;**

**1 to 3 credits** (Prerequisite: 20 credits in the major and permission of instructor)

▲ **CULA-299 Externship – Culinary Arts;**

**3 credits** Students will be placed in approved sites for 350-400 hours of related work experience. The student will complete an externship experience logbook pertaining to the work experience. The student will receive a formal evaluation verbally and in writing from their immediate supervisor. (Prerequisites: Completion of 30 credits, 20 of which must be from career courses, and approval of instructor and Career Services Representative)

## Dance

■ **DANC-111 (HU) Introduction to Dance I;**

**3 credits** This is a fundamental course in dance. Students will learn to develop the body as a moving instrument through physical conditioning. They will be able to execute basic dance steps and movement with better understanding of the physical body.

■ **DANC-121 (HU) Modern Dance I; 3 credits** In this fundamental course, students will be able to perform, identify, comprehend and utilize the technical and choreographic skills of the modern dance discipline. No formal dance training is necessary.

■ **DANC-122 (HU) Modern Dance II; 3 credits** A continuation of the fundamentals of Modern Dance, "Fall and Recovery," development of flexibility, proper alignment and exploration of movement qualities. Choreographic skills will be further explored.

■ **DANC-131 (HU) Ballet; 3 credits** This is a fundamental course in classical ballet in which students will learn traditional techniques emphasizing body coordination, flexibility, strength, balance, extension, turns, placement and turnout. (Prerequisite: DANC 111 or instructor approval)

■ **DANC-141 (HU) Contemporary Jazz I; 3 credits** This is a fundamental course in contemporary jazz technique. The student will be able to perform modern jazz/contemporary dance techniques, using the body as an interpretive and artistic instrument. No prior dance experience required.

■ **DANC-142 (HU) Contemporary Jazz II; 3 credits** This course is designed for students who wish to continue and further explore the techniques of modern jazz. Lyrical jazz techniques and choreographic skills will be developed. (Prerequisite: DANC 141)

▲ **DANC-295 Special Project – Dance; 1 to 3 credits** Students may choose to specialize or investigate some area in greater depth by selecting one to three credits in this individual learning course for the major

## Dental Hygiene

▲ **DENA-110 Dental Science; 2 credits** This course will provide continued study in the disciplines of oral embryology and oral histology. Additionally, it will introduce the Dental Assisting student to the dental sciences of oral pathology and pharmacology. Emphasis will be placed on the recognition and identification of normal oral tissues and anomalies, systemic disorders and related oral sequelae and the most commonly used/prescribed pharmaceutical sin dentistry. (Prerequisites: ADEC 110 and ADEC 111)

▲ **DENA-111 Clinical Assisting; 3 credits** This course will incorporate the preclinical

principles and techniques learning in the Spring Semester. Expanded functions allowed by the State of New Jersey will be practiced in the New Jersey Dental School during the clinical rotation assignments. Chairside assisting also will be performed with the dental students and their patients.

▲ **DENA-112 Internship; 1 credit** This course will incorporate the preclinical principles and techniques addressed in Introduction to the Dental Professions and Dental Specialties I. Chairside assisting, office management, laboratory assignments, inventory control, radiographs and expanded functions allowed by the State of New Jersey for dental assistants will be performed during the clinical rotation assignments in private practice.

▲ **DENH-120 Introduction to Clinical Dental Hygiene; 4 credits** An introduction to the basic knowledge, skills and judgment necessary for prevention of disease of the teeth and surrounding tissue. Learning methods include lectures, seminars, self-instructional audio-visual presentations and reading assignments. Laboratory and clinical experiences provide the opportunity for practical application of the principles of comprehensive dental hygiene treatment. (Prerequisite: Admission to the Dental Hygiene program)

▲ **DENH-121 Clinical and Dental Hygiene I; 3 credits** The student will demonstrate advanced techniques to the dental hygiene appointment. To include oral physiotherapy, fluoride, treatment planning, adjunctive instrumentation, hypersensitivity and airbrasive. Case studies will also be examined with respect to treatment planning, behavior modification strategies and adult pedo preventive counseling. (Prerequisites: DENH 120, ADEC 111 and ADEC 110)

▲ **DENH-122 Clinical Services I; 3 credits** The student will perform the basic procedures relative to the traditional dental hygiene appointment. The learning method will be through clinical experience and weekly seminars. The seminar will support and supplement clinical education with topics relating to treatment planning, time management of the appointment book and clinic, telephone skills, legal and ethical issues of patient records, sharpening, adductive instrumentations, tobacco cessation and latex sensitivity. (Prerequisites: DENH 120, ADEC 111 and ADEC 110)

▲ **DENH-123 Oral Histology and Embryology; 2 credits** The course provides the dental hygiene student with a conceptual framework for understanding the growth and development of oral structures as well as an overview of the peri-natal events that begin their growth. Microscopic structures of the oral tissues, growth and development of the face and oral cavity will be studied to reinforce lecture topics. A detailed study of the development of the deciduous and permanent dentition is presented along with the common developmental disturbances and anomalies that sometimes occur during the complex pattern of growth and development. The knowledge obtained from this course will provide a basis for further study in oral pathology and periodontology, which will explore other conditions of the oral cavity. (Prerequisite: ADEC 111)

▲ **DENH-124 Nutrition; 2 credits** The purpose of this course is to provide the dental hygiene student with the knowledge to understand and skill to apply the principle of nutrition and diet evaluation and counseling relative to oral health in the dental setting.

▲ **DENH-231 Clinical and Dental Hygiene II; 2 credits** This course is designed to help further educate the dental hygiene student in various aspects of clinical practice. Included in this course is information relative to the care and treatment of the pedodontic, adolescent, pregnant, geriatric and special needs patients. Lectures, student presentation and interviews, discussion and case studies will be used to enhance learning. (Prerequisite: DENH 121)

▲ **DENH-232 Clinical Services II; 3 credits** The student will demonstrate advanced techniques relative to the dental hygiene appointment, to include oral physiotherapy, treatment planning, behavior modification strategies, adult and child preventive counseling. Case presentations will also be discussed and analyzed. Learning methods include seminar and clinical experience. (Prerequisites: ADEC 115, DENH 121, DENH 122, DENH 123 and ADEC 114)

▲ **DENH-233 Periodontology I; 2 credits** This lecture course is designed to explore basic concepts of the anatomy and pathology of the periodontium. Classification, etiology and treatment of periodontal disease are discussed in depth using slides, videos and CD-ROM. Correlation of the relationship of the histopathologic changes of the supporting structures of the teeth are integrated through the use of case based clinical

situation. (Prerequisites: BIOL 213, ADEC 115 and DENH 123)

▲ **DENH-234 Dental Health Education II/Community Dental Health; 2 credits**

This course is a participation and study of the principles of delivering health care to the public. It examines dental public health, the role of the dental auxiliary in planning, delivering and evaluation of community dental health programs, dissemination of dental health information and tools of public health including epidemiology, biostatistics, dental indices and reliability and validity of research methods. (Prerequisites: ADEC 114 and ADEC 110)

▲ **DENH-235 Oral Pathology; 2 credits**

As a member of the oral health team it is important for the dental hygienist to recognize pathological conditions in patients so that appropriate precautions and/or treatment may be rendered. This includes both systemic and oral conditions. Pathology is the study of abnormalities in morphology and function and may include any deviation from normal. Since abnormalities begin at the cellular level, this course also begins with cellular alterations and response. The majority of the course is devoted to oral pathology, with emphasis placed on those lesions most frequently encountered. For each lesion discussed, the etiology, pathogenesis, clinical and microscopic signs and symptoms, differential diagnosis, treatment, follow-up and prognosis are presented. Limited discussion will be devoted to general pathology as it relates to oral lesions and manifestations. (Prerequisites: ADEC 111, BIOL 213, DENH 120, DENH 123 and DENH 124)

▲ **DENH-236 Pharmacology and Oral**

**Medicine; 1 credit** This course will introduce the dental hygiene student to pharmacology as it relates to the practice of dentistry including adverse drug reactions, pharmacologic effects and their usual incitations and contraindications. (Prerequisites: BIOL 112 and ADEC 113)

▲ **DENH-242 Clinical Services III; 3 credits**

The students will demonstrate advanced techniques relative to the dental hygiene appointment, to include oral physiotherapy, treatment planning, behavior modification strategies, adult and child preventive counseling. Case presentations will also be discussed and analyzed. Learning methods include seminar and clinical experience. (Prerequisites: ADEC 115, DENH 121, DENH 122, DENH 123 and ADEC 114)

▲ **DENH-243 Periodontology II; 2 credits**

This lecture course is a continuation of Periodontology I. We will delve further into clinical manifestations of perio disease and its treatment using case histories. Guest lectures may also present the current information on clinical and adjunctive home care aids available. Students will correlate their patients' care through a case presentation and article reviews will enhance current events on the perio scene. (Prerequisite: DENH 233)

▲ **DENH-244 Dental Specialties II; 1 credit**

This course is designed to build upon the knowledge and skills developed in Dental Specialties I. Students will rotate throughout clinic where they will function as New Jersey expanded duties dental hygienist/dental assistants, and become clinically proficient in all expanded duties listed in the New Jersey Dental Auxiliary Practice Act. In addition, dental hygiene students will attend the New Jersey Dental School Pain Control course to obtain the necessary didactic knowledge in the application of pain control techniques. (Prerequisites: ADEC 110, ADEC 112 and ADEC 116)

▲ **DENH-245 Pain and Anxiety Control;**

**1 credit** The course is designed to introduce the student to the principles of local anesthesia in dentistry. Emphasis will be placed on clinical application of these principles. Anatomy of the head and neck will be stressed throughout the course with an in-depth review of the trigeminal nerve and neurophysiology. The pharmacology of various local anesthetics and vasoconstrictors will be reviewed. Discussion of systemic toxicity and local complications will alert the student to emergencies that can develop in the dental treatment area. Local anesthetic techniques will be discussed and a rational approach to selection of anesthetic and injection techniques for each patient will be presented. (Prerequisite: ADEC 116)

▲ **DENH-246 Capstone Seminar; 2 credits**

The Capstone Seminar is at the conclusion of a student's program of study and caps prior course work. The course is an opportunity for students to synthesize what they have learned in the Dental Hygiene major by applying research methods and oral pathological conditions into a case study for publication and presentation. (Prerequisite: Approval of Program Director)

## Digital Media

▲ **DGMD-101 (t) Introduction to Digital Media; 3 credits**

Digital Media Technology is designed to familiarize the student with the expanding world of new digital media formats. Students will learn about audio, video, and print media in both a non-linear and hypermedia environment. The course will include the basics of digital media formats and codecs, introductions to software and concepts utilized in digital AV production and graphic design, and discussions about current and future concepts in the digital audio-visual domain. Some additional lab time is expected in this course. A fundamental understanding of a Windows OS, and basic computer knowledge is helpful.

▲ **DGMD-102 Introduction to Streaming**

**Media; 3 credits** This course is designed to give students an understanding of the basic concepts of how streaming media technology works. Students will examine the variety of media that can be streamed while exploring the different streaming media formats and technology available. Audio, video, as well as other material for streaming will be acquired and digitized. In addition, students will explore design issues that relate to the use of streaming media. Additional lab time of at least one hour per week in the digital media lab may be required. (Prerequisite: A grade of "C" or higher in DGMD 101).

## Digital Animation and 3D Design

▲ **DIGM-115 Storyboarding & Editing: After**

**Effects; 3 credits** Students explore the wide range of project management and presentation skills within this preproduction activity. Concepts covered in this course include scene set-up, camera maps, camera angles, staging, camera motion, and presentation techniques for effective boards. Production techniques include the use of a variety of materials used to formulate rough thumbnail sketches from shot description boards to final animatics. Students discuss storyboard formats, the visual industry standard method of communication.

▲ **DIGM-116 Digital Production: Photoshop;**

**3 credits** This course introduces students to fundamental concepts, principles and practices of digital imaging for animation, game development and 3D design. Students will learn to use the tools to manipulate digital

images for animation and design applications. Students will use layers, adjustment layers, layer effects, masks and filters to create special effects. Students will use paint tools, blending modes, and channels in the creation of their images.

▲ **DIGM-121 Maya I: 3D Modeling; 3 credits**

This course introduces students to fundamental concepts, principles, and practices of 3D digital modeling. Students are given instruction in 3D modeling techniques including: production of geometric and organic surfaces and forms using NURBS, polygon construction and sub-divisional surfaces. The primary 3D modeling and rendering software used in this course will be Maya which is a commercial standard for 3D modeling.

▲ **DIGM-122 Maya II: Fundamentals; 3 credits**

This course is a series of project-based lessons designed to guide students through the process of creating and generating an animation. This course teaches students how to model, animate, texture map, add visual effects and render using Maya software (Prerequisite: DIGM 121)

▲ **DIGM-125 Digital Editing: Combustion; 3 credits**

Students will learn to use a node-based digital video interface to create composites for motion graphics and visual effects. Students will use Combustion non-linear interface and extensive tool sets, in addition to operators and expressions, to create scenes in 2D and 3D environments. (Prerequisite: DIGM 121)

▲ **DIGM-126 Digital Modeling: ZBrush; 3 credits**

Students will use ZBrush's high-level controls and applications for 3D modeling and texturing. ZBrush's Subdivisional surface modeler will be used for model creation and manipulation. This course includes the fundamentals of the ZBrush interface; the 3D edit mode; texturing techniques; Zspheres modeling; displacement; and rendering within ZBrush.

▲ **DIGM-221 Maya III: Rendering; 3 credits**

Students will light 3D scenes, set up shading networks and render 3D images with alpha channels for compositing. Students will demonstrate an understanding of composition through lighting, camera, and color manipulation. Students will establish a digital lighting design methodology. (Prerequisite: DIGM 122)

▲ **DIGM-222 Maya IV: Advanced Modeling & Character Rigging; 3 credits**

Students will build a standard bipedal skeleton with prop-

erly aligned rotation axes character rig. Students will construct a Full Body IK control rigging and skin for the model. The character setup and rigging techniques will include kinematics and inverse kinematics, and deformers. Expressions will be used to animate particles. (Prerequisite: DIGM 221)

▲ **DIGM-225 Digital Design and Production; 6 credits**

This course is a design and production project for Digital Media Arts students enrolled in Digital Animation & 3D Design and the Game Programming Option. Students will produce a high-quality original game or animation product. The project begins with the creation of the original concept, continues with storyboarding, and ends with post-production processing. The student will document each stage of the project's development. The project will be presented for critique and evaluation at each of the developmental stages. (Prerequisites: DIGM 221 or permission of instructor)

## Drafting and Design

▲ **DRFT-106 Fundamentals of Basic Drafting; 3 credits**

This course is intended for the student who has not had any previous experience with drafting. The student will become familiar with the basics of mechanical drawings and basic drafting procedure. The student will learn to use the basic tools of drafting in the preparation of engineering drawings. (Prerequisite: MATH 021, MATH 025 or passing score in algebra on Basic Skills Test)

## Economics

● **ECON-105 (SS) Macro Economics; 3 credits**

Students will understand how a market economy operates using the fundamental principles of supply and demand. They will be able to relate the significance of unemployment, inflation and other indicators to our nation's economy. They will be able to explain the effects of monetary and fiscal policy and the impact of foreign trade on the phenomenon of economic growth. (Prerequisites: MATH 015, READ 092 or READ 095, and ENGL 095, or passing scores in computation, reading, and English on the Basic Skills Test.)

● **ECON-106 (SS) Micro Economics; 3 credits**

Students will understand principles of supply and demand including sensitivity

analysis to price, income and utility. They will analyze cost under various market structures. Both the output and input markets will be examined. (Prerequisites: MATH 015, READ 092 or READ 095, ENGL 095 or passing scores in computation, reading and English on the Basic Skills Test)

● **ECON-107 (SS) Economics; 3 credits**

This intensive course for non-business students combines macro and micro economics theory. It is designed to acquaint students with the nature of the market system and the major issues and problems affecting our economy. Students will understand the basic theoretical principles of demand theory, cost and price, equilibrium analysis and application to decision-making in the firm. Students will also understand the basic theoretical principles of production possibilities, national income accounts, consumption, investment, monetary and fiscal policies and problems of employment and price levels. ECON 107 is a condensed combination of ECON 105 and ECON 106. Therefore, a student will not receive credit for ECON 107 in addition to ECON 105 and ECON 106. Also, since ECON 107 is not a comprehensive combination of ECON 105 and ECON 106, it cannot be used in place of the two. (Prerequisites: MATH 015, READ 092 or READ 095, and ENGL 095, or passing scores in computation, reading, and English on the Basic Skills Test)

■ **ECON-225 (M) Business Statistics; 3 credits**

Students will summarize statistical data, both graphically and as measures of center and dispersion. Discrete and continuous probability, sampling techniques, distributions, hypothesis testing, confidence intervals, regression, time series analysis and index numbers are also covered. (Prerequisite: MATH 021, MATH 025 or passing score in algebra on Basic Skills Test)

▲ **ECON-295 Special Project – Economics; 1 to 3 credits**

Students will work independently on a project that is mutually agreed upon with the instructor. Students must meet with the instructor prior to registering and develop a written proposal on the project to be undertaken. (Prerequisites: ECON 105 and ECON 106).

## Early Childhood Education

- **EDEC-105 Foundations of Early Childhood Education (SS); 3 credits** Students will identify the emergent processes of early childhood development as they apply to learning and teaching in early childhood education programs. An emphasis on theoretical perspectives specifically related to early childhood development, developmentally appropriate delivery models and practices, and historical movements that guide teaching and learning in early childhood education settings will be identified as they impact the physical, social, emotional and cognitive development of young children. An understanding of the nature of early childhood education services and programs for young children with special needs will be demonstrated. Developmentally appropriate assessment processes and observation tools will be studied and applied in field based early childhood settings. Field experience is required in this course. This course is required for the option of an AA degree in Education as a replacement of EDUC 105 for students interested in a career in early childhood education (Prerequisites: READ 091/READ 092 sequence or READ 095 and ENGL 095 or passing scores on reading and English Basic Skills Test)
- ▲ **EDEC-199 Education Field Experience; 0 credits** Students who have completed EDEC 105 as a part of the Education AA Early Childhood Education Option with a grade of B or better are required to complete 60 hours field experience. 30 hours are to be completed in an early learning environment, 30 hours to be completed in a K-3 setting. Observation sites must be licensed and meet with department approval. Field observations are required to meet transferability of EDEC 105 to four-year institutions and certification options. (Prerequisite: EDEC 105 with a grade of "B" or better. Attendance at a mandatory orientation and seminar session.)
- ▲ **EDUA-106 Language Arts in Early Childhood Programs; 3 credits** Students will identify the materials and methods used in language arts experiences in early childhood programs. They will also demonstrate basic methods of teaching, listening, speaking, pre-writing and pre-reading skills and know the developmental language characteristics of students in early childhood programs. Fieldwork is required in this course.

▲ **EDUA-131 Social Studies in Early Childhood Programs; 3 credits** Students will know what social studies skills and attitudes should be developed in early childhood programs through the study of units in basic social studies subjects, multicultural experiences and the methods and materials for teaching social studies in early childhood settings. They will also develop and demonstrate materials for teaching social studies in early childhood programs. Fieldwork is required in this course.

▲ **EDUA-135 Music in Early Childhood Programs; 3 credits** Students will define the goals of an early childhood music program and explore the ways to utilize music in the classroom. Emphasis is placed on developing the skill of writing lyrics to familiar tunes and building a set repertoire of songs to complement a year-long early childhood curriculum. Appropriate handmade musical instruments and props are produced. Musical application, across all educational disciplines, is demonstrated. Songs, props and instruments are combined to enhance and produce musical dramatic play activities. Fieldwork is required in this course.

▲ **EDUA-145 Nutrition, Health and Safety in Early Childhood Programs; 3 credits** Students in this course will study the proper practices used in early childhood programs for diet, nutrition, safety and health maintenance. Emphasis is placed on current critical issues related to health, safety and nutrition for young children focusing on current practices, guidelines, performance standards, planning and assessment. Students will develop competency statements of the interrelationship of health, safety and nutrition. Students will demonstrate a two-week lesson plan to teach some aspect of health and nutrition in early childhood settings. Fieldwork is required for this course.

▲ **EDUA-205 Creative Arts in Early Childhood Programs ; 3 credits** Students will know the developmental levels of creativity in early childhood settings, demonstrate basic arts and crafts and music skills suitable for early childhood students in class. They will also know the methods, techniques and materials used in creative arts in early childhood settings. Field work is required in this course.

▲ **EDUA-206 Math and Science in Early Childhood Programs; 3 credits** Students will know the basic math and science skills to be taught to early childhood students and will demonstrate some of these in class. They will also know the basic methods,

techniques and materials used in teaching early childhood math and science. Fieldwork is required in this course.

▲ **EDUA-299 Early Childhood Assistant Internship; 1 to 5 credits** The student will participate in a field experience for nine to eighteen hours per week of on-the-job experience. (Prerequisites: Five from among EDUA 106, EDUA 205, EDUA 206, EDUC 105, EDUC 216 and EDUC 217. EDUC 105, EDUC 216 or EDUC 217 for students who wish placement in special education classes, or a minimum of 9 credits in Early Childhood courses if they wish placement in preschool classes, permission of instructor and Career Services Representative.)

## Education

- **EDUC-105 (SS) Introduction to Education; 3 credits** The student will identify and define current issues in education and describe various philosophical viewpoints in education. Students interested in teaching secondary education or special education are recommended to take EDUC 217 as a follow-up to this course. Students interested in teaching early childhood education or general elementary education are recommended to take EDUC 217 or EDUC 116 as a follow-up. The EDUC field work lab (EDUC 199) and a grade of B or better are required for successfully transferring this course to most four-year institutions for education majors.
- ▲ **EDUC-199 Education Field Experience; 0 credits** Students who have completed EDUC 105, Introduction to Education, with a grade of B or better, are required to complete 60 hours of observation in an approved academic setting to ensure transferability of EDUC 105 to a four-year institution. (Prerequisites: Completion of EDUC 105, Introduction to Education, with a grade of at least B. Attendance at a mandatory orientation session.)
- ▲ **EDUC-216 Classroom Techniques; 3 credits** The student will be able to identify and apply various teaching methods used in presentation of materials. Techniques such as discussion, lecture, role playing, demonstrations, games, field trips, computer instruction, etc., will be explained and illustrated. The methods covered will have wide applicability to all levels and subjects. Students' presentations will be videotaped.

■ **EDUC-217 (SS) Introduction to the Exceptional Child; 3 credits** The student will identify the characteristics of special children and will develop programs to meet the needs of these children. The student will observe special education programs presently functioning in Monmouth County. Units include retardation, learning disability, giftedness, physical handicaps and emotional disorders. This course is of interest to parents of special needs children as well as those interested in a career in education.

▲ **EDUC-225 Literacy Development and Instruction; 3 credits** This course is designed to give students a foundation in the theory and practices of literacy development as they pertain to the processes by which children learn to read and write. Students will be able to recognize the relationships between phonemic awareness, phonics, word recognition, vocabulary and fluency, as well as the complex skills required to develop comprehension in all content areas. Students will also explore the interrelatedness in the development of reading and writing skills and impact of diverse learners and multicultural issues on the curriculum. Upon completion of the course, students will have developed a foundation in the scientifically research based instructional methods and activities that drive current pedagogical practices. (Prerequisites: EDUC 105 or EDEC 105; Prerequisites or corequisites: READ 091/092 or READ 095 and ENGL 095 or passing score on the Basic Skills Placement tests for reading and writing).

▲ **EDUC-295 Special Project – Education; 1 to 6 credits** The student will work independently on a project mutually agreed upon with the instructor.

▲ **EDUC-299 Education Internship; 1 to 6 credits** The student will participate in a fifteen week field experience in a county school or agency designed to provide nine to eighteen hours per week of on-the-job experience for education students. Note that this course may not be accepted as an education course by New Jersey state colleges. (Prerequisites: EDUC 105, EDUC 216 or EDUC 217 for students who wish placement in special education classes, or a minimum of 6 credits in Early Childhood courses if they wish placement in preschool classes, permission of instructor and Career Services Representative)

## Electric Utility Technology

▲ **ELEC-131 Electrical Circuits for Power Distribution I; 4 credits** This course is specifically designed for students in the Electric Utility Technology Program. At the conclusion of this course, the student will be able to analyze and measure series, parallel, series-parallel, and bridge circuits. Additionally, the student will apply the basic laws of meter circuits and various circuit analysis techniques including Kirchoff's laws, Mesh Analysis, Nodal Analysis, Thevenin's Theorem, and Norton's Theorem. (Prerequisites: A grade of "C" or higher in ELEC 103).

▲ **ELEC-132 Electrical Circuits for Power Distribution II; 4 credits** This course is specifically designed for students in the Electric Utility Technology Program. At the conclusion of this course, the student will be able to analyze complex AC circuits comprised of resistors, capacitors, and inductors, and use the j operator (complex algebra) to calculate impedance, currents, voltages, and phase angles. S/he will be able to use standard laboratory test equipment such as the oscilloscope, VOM, DMM, audio generator, frequency counter and others to measure and verify calculated values. (Prerequisites: A grade of "C" or higher in ELEC 103 and ELEC 131)

▲ **ELEC-133 Electrical System Design and the National Electric Code; 3 credits** This course introduces students to the National Electric Code as it applies primarily to the design of large commercial and industrial installations. Students will perform power factor calculation and corrections, conductor size calculations, circuit over-current protection selection, grounding, lighting design, single-phase and three-phase transformer connections, and circuit analysis. (Prerequisites: A grade of "C" or higher in ELEC 103 and ELEC 131)

▲ **ELEC-201 Electrical Transmission and Distribution I; 3 credits** This course encompasses power transmission and distribution systems, components and analysis. Field trips to appropriate sites comprise the laboratory requirement. (Prerequisite: A grade of "C" or higher in ELEC 131)

▲ **ELEC-202 Switchgears, Transformers and Controls; 3 credits** This course covers low and high voltage circuit breakers and switchgear primarily from 4kV to 15kV. It shows basic switchgear construction, how

circuit breakers function and general maintenance of such equipment. The basic theory of transformers and connection schemes of common types of transformers, including dry and wet type distribution transformers, power transformers, and instrument transformers is explained. Control ladder and wiring diagrams, with input and output control devices are presented. (Prerequisites: A grade of "C" or higher in ELEC 131)

▲ **UTIL 101 Overhead Lines Technology I; 4 credits** This course is specifically designed for students in the Electric Utility Technology Program. Students will be able to perform work on secondary voltage circuits; have an understanding of techniques used to install transmission support systems, transformers and install anchors safely and efficiently with concentration on the installation of services, street lighting and secondary circuits. Included are advanced training pertaining to the various transmission support system framing techniques and guying methods. An overview of transmission and distribution of electrical systems, Occupational Safety and Health Administration (OSHA) and rigging safety awareness requirements will be included in this course.

▲ **UTIL 102 Overhead Lines Technology II; 4 credits** Students will be able to safely and properly install three-phase primary conductors to operate transmission line installation equipment, to safely install and operate line fuses, reclosers, transformer power banks, capacitors, and line voltage regulators, to identify, install and maintain underground residential distribution secondary equipment. The safe and proper methods to install box pads, single-phase transformers, primary elbows and terminators, and safety requirements will be included throughout the course of instruction. (Prerequisites: A grade of "C" or higher in UTIL 101)

▲ **UTIL- 201 Overhead Lines Technology III; 4 credits** Students will be able to identify, install and maintain primary underground residential distribution (URD) equipment, have knowledge pertaining to the different styles of sub-transmission support structures, with instruction on the techniques and proper use of hot-line tools to work sub-transmission & distribution structures when laying out conductors and changing various insulators; have knowledge and skill to safely perform rubber glove assignments using the insulate and isolate techniques. The student will be familiar with various methods of troubleshooting URD primary and

secondary. Students will perform various tasks while working on an energized three-phase circuit under controlled conditions. Applicable safety requirements will be taught and stressed throughout the course of instruction. (Prerequisites: A grade of "C" or higher in UTIL 102)

- ▲ **UTIL 202 Overhead Lines Technology IV; 4 credits** Students will be able to safely climb transmission support towers and H structures to achieve the qualified status. Upon qualification, the student will obtain the basic skills to perform intermediate tasks while aloft on these pertinent structures. The student will gain an understanding of substation equipment and one line drawings. Emphasis will be placed on recognizing energized equipment, minimum approach distances and substation safety. At the conclusion of the course, the student will be qualified to enter a substation. Included in this course of instruction are: Lockout/Tagout, Master Drive, Topical Safety, Comprehensive Skills Review and a Safety Fair. (Prerequisites: A grade of "C" or higher in UTIL 201)

- ▲ **UTIL 299 Internship in Electric Utility Technology; 2 credits** This course is for the Electric Utility Technology major who wishes to earn credit while working in the field. The course requirements will be discussed with an electronics instructor and a Career Services Representative prior to the student's participation. (Prerequisite: A grade of "C" or higher in UTIL 102 and permission of FirstEnergy)

## Electronics Technology

- ▲ **ELEC-101 Computer Aided Circuit Analysis; 3 credits** This course will introduce the student to the hardware and software of an Advanced Personal Computer Workstation, Windows, E-mail, Microsoft Word, and the use of PSpice 9.2, an Electronic Circuit Analysis Program with schematic capture. The student will use the computer to draw various electronic circuits, and perform DC, AC, and Transient Analysis to simulate circuit operation under both normal and extreme operating conditions.
- ▲ **ELEC-103 Electrical Skills and Techniques; 4 credits** Students will be able to operate standard analog laboratory instruments including the VOM, oscilloscope, audio generator and frequency counter. They

will be able to solder PC board connections for IC chips, sockets and standard components. Wire-wrap techniques will also be utilized. Students will collect data and display the data using proper graphing techniques on appropriate graph paper. The student will be able to use the scientific calculator utilizing the majority of the scientific functions on the calculator. The student will be able to use Ohm's law to solve series, parallel and series-parallel DC circuits. (Prerequisite or Corequisite: MATH 022, MATH 025 or passing score in algebra on Basic Skills Test)

- ▲ **ELEC-111 Electrical Circuits I; 4 credits** Students will use basic electrical quantities and analyze series, parallel and series-parallel DC circuits. They will be able to employ Kirchoff's Laws and the various network theorems to simplify and systematically attack complex DC circuit problems. In addition, students will be able to design simple meter circuits and determine the correct type of electrical instrument for a particular application. (Prerequisites or Corequisites: ELEC 103 and MATH 161)
- ▲ **ELEC-112 Electrical Circuits II; 4 credits** At the conclusion of this course, the student will be able to analyze complex AC circuits comprised of resistors, capacitors, and inductors, and use the j operator (complex algebra) to calculate impedance, currents, voltages and phase angles. She/he will be able to use standard laboratory test equipment such as the oscilloscope, VOM, DMM, audio generator, frequency counter, and others to measure and verify calculated values. (Prerequisite: ELEC 111 and MATH 161; Recommended corequisite: ELEC 121).

- ▲ **ELEC-121 Introduction to Electronic Devices and Circuits; 4 credits** Students will be able to explain the basic fundamentals of the diode, bipolar transistor and FET operation, be able to draw schematic symbols and the schematics for various circuit configuration, and be able to design the bias circuits necessary to operate the devices in the linear region of their characteristic curves. They will be able to interpret OP-AMP specification sheets and apply the information to OP-AMP circuits. They will be able to design, build, test and explain the operation of various OP-AMP circuit configurations such as summing and instrumentation amplifiers. (Prerequisite: ELEC 111)

- ▲ **ELEC-222 Advanced Electronic Circuits; 4 credits** The student will be able to apply

the principles of semiconductor devices to design filters, audio amplifiers and draw a Bode Plot to show how circuit components affect the operation of various circuits. They will be able to design, build, test and explain the operation of various circuit configurations using both discrete and integrated circuits. The student will be able to design, build, test and explain the operation of various active filters, instrumentation amplifiers, integrators and differentiators. (Prerequisite: ELEC 121)

- ▲ **ELEC-241 Introduction to Digital Circuits; 4 credits** This course is an introduction to the basic principles of digital electronics. Students will be able to quantitatively identify the fundamentals of computers, including number systems, logic gates, logic and arithmetic subsystems and integrated circuits. The student will gain the practical skills necessary to work with digital circuits through problem solving and hands-on laboratory experience with logic gates, encoders, flip-flops, counters, shift registers, adders, etc. The student will be able to analyze and design simple logic circuits using tools such as Boolean algebra and Karnaugh Mapping and will be able to draw logic diagrams using both the traditional logic symbols and the ANSI/IEEE Std 91-1984 symbols with dependency notation. (Prerequisite: A grade of "C" or higher in ELEC 103)

- ▲ **ELEC-242 Introduction to Microprocessors – Architecture and Assembly Language; 4 credits** This course is an introduction to the basic principles of microprocessor architecture and assembly language programming. This course is divided into two sections, hardware and software, and is designed on the Intel family of microprocessors. In the hardware portion of the course, the student will become proficient in microprocessor and the three-bus architecture. In the software portion of the course the student will become proficient in writing assembly language programs using a microcomputer and an assembler. The student will become familiar with the microprocessor instruction set and will write programs consisting of loops, time delays, indexing and subroutines. (Corequisite: COMP 137)

- ▲ **ELEC-243 Mini/Microcomputer Interfacing; 4 credits** This is a hands-on course which will provide the knowledge and skills needed to test, troubleshoot, repair and upgrade a personal computer. The student will learn to install operating systems such

as DOS and Windows. They will learn all the basic commands and peer to peer networking and networking essentials.

▲ **ELEC-244 Computer Peripherals, Data Communications and Networking; 4 credits**

This course is an introduction to computer and local area networking. It will introduce students to the commonly used protocols and their configuration. The students will be able to install all the software and hardware needed to create a LAN. After installation they will be able to configure the LAN for users, groups and printers. NOVELL netware and Microsoft NT are used as operating systems.

▲ **ELEC-250 Fundamentals of Optoelectronics; 4 credits**

This course is an introduction to the basic fundamentals of optics, wave theory, LED and solid state laser illuminating sources and the interaction of light with matter. The student will become proficient in the requirements to transmit and receive optical information over fiber optical paths. (Prerequisite: ELEC 121)

▲ **ELEC-295 Special Project - Electronics Technology; 1 to 4 credits**

A written proposal by the student detailing an independent course of study and project, and approval of enrollment by an Electronics Technology faculty member, is required for entry into this course. (Prerequisite: satisfactory completion of the first year of courses and approval of an Electronics Technology Faculty Advisor)

▲ **ELEC-299 Internship in Electronics; 4 credits**

This is a four-month cooperative education work experience which provides students with industrial reinforcement of their academic programs through direct exposure to industrial situations and work assignments. This course may lead to professional relationships which could result in permanent employment before or after graduation. (Prerequisite: Permission of instructor and Career Services Representative)

## Engineering

▲ **ENGI-101 Engineering Mechanics I; 3 credits**

Subject includes classification of systems of forces, resultants, geometrical and analytical conditions for equilibrium of force systems, frames, trusses, friction, centers of gravity, moments of inertia, parabolic and catenary cables. (Prerequisites: A grade of "C" or higher in MATH 171 and PHYS 121)

▲ **ENGI-102 Engineering Mechanics II; 3 credits**

Subject includes kinematics and kinetics of particles and rigid bodies, plane motion of particles and rigid bodies, moments of inertia, rotation of rigid body, relative motion, principles of work and energy, impulse, momentum and impact. (Prerequisites: A grade of "C" or higher in ENGI 101 and MATH 172)

▲ **ENGI-105 Introduction to Engineering; 1 credit**

This course is an introduction to the Engineering Curriculum. The purpose of this course is to expose the student to the various branches of engineering, the careers that are available, the educational requirements, and the tools of the engineer. Various computer demonstrations and student projects will be performed to introduce the student to typical engineering uses of computers and software. The course consists of one hour per week of lecture. Upon successful completion of this course, the student will earn one credit. The students should have an interest in understanding the challenges of engineering as a profession.

▲ **ENGI-205 Strength of Materials; 3 credits**

Subject includes properties of structural materials, stress and strain relationship, proportional limit, yield-point, ultimate strength, modulus of elasticity, design of axial members, working stress, design of bending and torsional members, riveted and welded joints, deflection of axial, bending and torsional members, solution of intermediate beams by double integration, combined stresses, design of compression members and columns, stresses at a point on different planes, fatigue of metals, stress concentration, impact and energy loads, principal stresses and theories of failure. (Prerequisites: A grade of "C" or higher in MATH 171 and ENGI 101)

▲ **ENGI-206 Material, Properties and Processes; 3 credits**

Students will be introduced to the basic principles underlying the behavior of materials. This course will provide the scientific foundation for an understanding of the relations between material properties, structure and performance for the classes of engineering solids (metals, polymers, ceramics, semiconductors and composites). Concepts will be developed and applied which allow for correlation between performance and aspects of structure, from the atomic through the macroscopic level, including ideas relating to atomic and larger size defects. (Prerequisite: A grade of "C" or higher in ENGI 101)

▲ **ENGI-216 Kinematics and Dynamics of Machinery; 3 credits**

The design approach is applied to machines such as cam and follower, speed changers, geared transmissions, planetary gear systems and linkages for generating specific type of motion. Graphic, analytical and digital computer methods are used. (Prerequisite: A grade of "C" or higher in ENGI 102)

▲ **ENGI-241 Principles of EE I (Circuits); 4 credits**

This course introduces the student to the basic concepts of DC and AC circuit analysis, loop and node analysis, network theorems and poly-phase circuits. Laboratory work emphasizes basic measurement techniques. The student will verify circuit theory as well as laboratory measurements with computer-aided circuit analysis such as PSpice and other software packages. (Prerequisites: A grade of "C" or higher in MATH 172 and PHYS 122)

▲ **ENGI-242 Principles of EE II (Electronics); 4 credits**

This course introduces the student to electronic circuits and devices, particularly junction diodes, bipolar transistors and field effect transistors. The student will learn the elementary concepts of electronic device physics, transistor circuit biasing, amplifiers and transistor models. The student will design and analyze transistor amplifiers with the assistance of various computer-aided circuit analysis software packages. (Prerequisite: A grade of "C" or higher in ENGI 241)

▲ **ENGI-251 Digital I; 3 credits**

This course is an introduction to the basic principles of digital electronics. At the conclusion of this course, the student will be able to quantitatively identify the fundamentals of computers, including number systems, logic gates, logic and arithmetic subsystems, and integrated circuits. She/he will gain the practical skills necessary to work with digital circuits through problem solving and hands-on laboratory experience with logic gates, encoders, flip-flops, counters, shift registers, adders, etc. The student will be able to analyze and design simple logic circuits using tools such as Boolean Algebra and Karnaugh Mapping and will be able to draw logic diagrams using both the traditional logic symbols and IEEE/IEC Std. 91-194 logic symbols with dependency notation. (Prerequisite: A grade of "C" or higher in PHYS 122 and MATH 172)

▲ **ENGI-252 Principles of EE III (Circuits); 3 credits**

This course introduces the student to three-phase circuits, transformers, resonance Laplace Transform theorems,

S-domain circuit analysis, Bode diagrams, Fourier Series, Fourier Transforms and applications. The student will use computer-aided circuit analysis software packages in the analysis and design of circuits.

(Prerequisite: A grade of "C" or higher in ENGL 241; Prerequisite or Corequisite: MATH 274)

- ▲ **ENGL-261 Surveying; 4 credits** Subject includes field measurements with transit, level, tape, errors in measurements, data reduction, triangulation, topographical surveys, route location and earthwork computation, geodetic corrections and subdivision design. (Prerequisite: CADD 121; and MATH 171)

## English

### **ENGL-093 Discovery Through Writing;**

**3 credits** This course is intended for students who have special needs in writing and learning. The goal of this course is to help students discover the validity of their own thoughts and experiences and to use writing as a tool for self expression and communication. This is a developmental course and will not be counted toward degree requirements. Placement in this course is determined by counselor or instructor recommendation. Students may not enroll in another writing course simultaneously with ENGL 093.

### **ENGL-094 Writing Skills Lab; 2 credits**

This course is designed for students who need additional work in grammar or the writing process after having taken a Basic Skills Course (ENGL 093 or ENGL 095) or ESL 225. Students are recommended by a writing or language instructor. After a diagnostic writing and orientation session, students are placed with a lab instructor. A grade of "P" is given when the student achieves course contract objectives. This is a development course in basic skills and will not be counted towards degree requirements. (Prerequisite: Approval of writing or Language instructor.)

### **ENGL-095 Fundamentals of Writing;**

**4 credits** This basic writing course is designed to teach students to write clear, well-organized and mechanically acceptable prose. In addition to class, students are required to work in the Writing Lab each week. Successful completion of ENGL 095 satisfies students' basic skills requirement in writing. This is a developmental course and will not be counted toward degree

requirements. Students may not enroll in another writing course simultaneously with ENGL 095.

### **ENGL-097 Seminar in College Writing**

**Strategies; 3 credits** This is a basic writing course for students who have made significant progress in ENGL 095 but who need further development in the strategies and skills that are necessary for successful college writing. Objectives for this course are based on the student's ENGL 095 portfolio and achieved in a small group, computer-integrated setting. A grade of "P" is given when students acquire the skills they need to succeed in freshman writing courses. This is a developmental course and will not be counted toward degree requirements. (Prerequisites: ENGL 095 and instructor approval)

- **ENGL-121 (C) English Composition: The Writing Process; 3 credits** English 121 is an introductory writing course where students compose and revise narrative and expository essays and prepare for the study of literature by using writing to analyze texts. Through a writers' workshop approach, students explore the writing process, respond to a variety of texts and learn to communicate their ideas effectively and confidently in writing. (Prerequisite: ENGL 095, ENGL 097 or passing score in English on Basic Skills Test)
  - **ENGL-122 (C) English Composition: Writing and Research; 3 credits** This course teaches students to write and revise convincing papers using data to support an assertion or position. Students learn and practice the techniques and strategies that are necessary for conducting research and writing effectively on a range of subjects. (Prerequisite: A grade of "C" or higher in ENGL 121)
  - **ENGL-127 (C) Business Writing; 3 credits** This course introduces students to the principles of effective business writing. Students will develop their individual writing processes as they write and revise letters, memos, resumes and reports. Emphasis is placed on appropriate organization, clarity and conciseness in informative and persuasive business writing. (Prerequisite: A grade of "C" or higher in ENGL 121 or instructor approval)
  - **ENGL-128 (C) (CG) Writing From the Female Experience; 3 credits** This women's writing workshop focuses on topics relevant to the female experience. Through their own writing and study of women's
- autobiographical works, participants will explore the uniqueness and universality inherent in their own and other women's lives. Readings include excerpts from diaries, journals, letters and essays. Students will select one longer autobiography for in-depth analysis and research. Written work required includes weekly journal writing, formal and informal papers and a research report. (Prerequisite: ENGL 095 or passing score in English on Basic Skills Test)
- **ENGL-150 (HU) (CG) African-American Literature; 3 credits** This introductory African-American Literature survey course, through eclectic samplings of narratives, poetry, short stories, plays and novels, exposes students to literary contributions of prominent/influential twentieth-century Black writers. Increased enjoyment, study and appreciation of texts and authors explored emerge from critical analysis of literary selections, classroom discussions and written journal and research projects. (Prerequisite: ENGL 121)
  - **ENGL-155 (HU) The Short Story; 3 credits** Students will read and discuss short stories drawn from the literature of many cultures and countries. They will analyze the stories for the theme, form, relationship to their own lives and reflection of various cultures. The relevance of these short stories for the modern reader will be examined.
  - **ENGL-156 (HU) Introduction to Poetry; 3 credits** The student will read and discuss poetry from earliest times to modern times. Emphasis will be on how to read a poem for maximum enjoyment and understanding.
  - **ENGL-158 (HU) Introduction to Literature; 3 credits** A fundamental overview of literature for those who love to read and for those who have previously been intimidated by literature courses. It teaches terminology of the four major genres of literature, (poetry, drama, short story and the novel) and the literary movements that have shaped these genres from the Classicism of Aristotle to the Anti-realism of MTV. This course stresses easy techniques for effectively answering essay questions, for writing papers for literature courses, and for more efficient studying.
  - **ENGL-161 (HU) Literature of the Occult; 3 credits** Through readings and discussion, the student will discover the scientific and/or mystical validity of experiences in the fields of parapsychology, astrology, bio-feedback, ritual magic, meditation, mind control and reincarnation.

▲ **ENGL-162 Advanced Literature of the Occult; 3 credits** Using selected readings and seminar discussions, the student will design a sequence of in-depth projects and papers, exploring the current scientific or historical significance of parapsychology, holistics and other paranormal and hermetic disciplines. (Prerequisite: ENGL 161)

■ **ENGL-168 (HU) Contemporary Plays; 3 credits** The student will demonstrate a knowledge of some of the major plays of our literature after the Second World War and analyze them in terms of dramatic content and theatrical devices. The student will see films and live productions which make the play come to life.

■ **ENGL-175 (HU) (CG) Woman As Author; 3 credits** Students will learn about the contribution of women to the world of literature. They will understand and identify recurrent themes and images in women's writing. Students will apply their understanding by analyzing the selections read during the semester.

■ **ENGL-221 (HU) Creative Writing; 3 credits** The student will plan, write and revise fiction and nonfiction, including short stories, poetry, articles and novels. Help will be available for writers who have not yet broken into print and for those who want to prepare manuscripts for publication.

■ **ENGL-223 (HU) Poetry Writing Workshop; 3 credits** Students will continue to build on the knowledge of craft and style of creative writing garnered from the prerequisite mixed genre class, Creative Writing, but in this advanced course concentrate on the specific techniques of effective contemporary, traditional, and innovative poetry. Students will articulate their understanding of poetic texts, forms and poetic craft elements through analysis of existing texts, peer texts, and in their own works. Students will work toward creating a portfolio of work with significant attention to revision and focus on preparation for publication. By the end of this course, students should also be ready to enter a creative writing degree program at a transfer institution. (Prerequisite: ENGL 221 or permission of instructor)

■ **ENGL-224 (HU) Fiction Writing Workshop; 3 credits** Students will continue to build on the knowledge of craft and style of Creative Writing garnered from the prerequisite mixed genre class, Creative Writing, but in this advanced course concentrate on the specific techniques of effective fiction writing. With

a greater emphasis on the concision and fluency of prose, a deeper understanding of the purpose and process of revision, authorial voice, and character and plot development, students will work toward creating a portfolio of work with significant attention to revision and focus on preparation for publication. By the end of the course, students should also be ready to enter a creative writing degree program at a transfer institution. (Prerequisite: ENGL 221 or permission of instructor)

■ **ENGL-225 (C) Technical Writing; 3 credits** Students will learn to communicate factual information objectively for the practical use of a reader. Assignments will include determining audience needs, summarizing and classifying information, describing objects and explaining processes, and composing letters and reports for various purposes. Clear, precise and economical writing is emphasized. Technical Writing is writing from a "technical point of view" and is not limited to writing about "technical" subjects. (Prerequisite: A grade of "C" or higher in ENGL 121 or extensive experience in a specific technology and permission of instructor)

▲ **ENGL-227 Creative Non-Fiction Workshop; 3 credits** Students will receive an overview of the art and craft of the personal essay and memoir with focus on how to transform personal narrative into literary form and the understanding of how to employ literary fictive techniques such as voice, dialogue, point of view, description, pacing, rate of disclosure, etc. Students will read creative non-fiction essays and critique them with an eye toward developing the skills to employ the techniques used by the authors read and annotated. Students will write, workshop, and revise personal essays, memoirs, and other creative non-fiction writing products and develop a portfolio by the end of the semester.

● **ENGL-231 (HU) British Literature I: Beginnings to 18th Century; 3 credits** Students will read and discuss major works of early British literature from the Anglo-Saxon period through the first half of the 18th century. Readings will include representative works from Chaucer, Shakespeare, Milton, and many others, with particular attention to their historical, social, and political contexts.

● **ENGL-232 (HU) British Literature II: Romantic Era to The Modern Age; 3 credits** Students will read and discuss major works

of British literature from the Romantic, Victorian, and Modern periods. The course will examine a broad and diverse range of poetry, prose, drama, and literary essays, tracing the rise and development of key styles, themes, periods, and movements in British literature over the last 200 or so years.

● **ENGL-235 (HU) World Literature I; 3 credits** The student will read and respond to masterpieces of world literature selected primarily from earliest times to the 18th century. The works' relevance for contemporary readers will be examined.

● **ENGL-236 (HU) World Literature II; 3 credits** The student will read and respond to selected plays, novels, short stories and essays selected from modern world literature. As with ENGL 235, the works' relevance for contemporary readers will be examined.

● **ENGL-245 (HU) American Literature I; 3 credits** This survey of Early American literature from the Puritans to Walt Whitman covers such writers as Ann Bradstreet, Ben Franklin, Jonathan Edwards, Edgar Allan Poe, Nathaniel Hawthorne, Emerson and others. Emphasis is placed on literary movements like Transcendentalism, as well as on how American literature reflects American culture.

● **ENGL-246 (HU) American Literature II; 3 credits** Students will read works reflecting America's literary growth and evolution in the 20th century. Major writers will be studied in an effort to determine their stature and influence on American literature.

■ **ENGL-265 (HU) Children's Literature; 3 credits** The student will read and respond to a variety of works in children's literature. Principles of criticism will be applied to literature and artistic elements in children's books. The role of literature in the education of the imagination will be explored.

■ **ENGL-266 (HU) Young Adult Literature: Books and the Adolescent; 3 credits** The student will explore the domain of young adult literature by reading a sampling from various genres published for readers ages twelve and up. Students will apply principles of criticism in written and oral discussion.

■ **ENGL-275 (HU) Shakespeare's Plays; 3 credits** Students in this course will be required to see and discuss at least five Shakespeare plays. Several theater trips will be available, and films and videotapes will

be screened in class or in the library. Students will be able to complete an in-depth review of a Shakespeare production by the end of the semester as well as to complete a term paper on some aspect of Shakespeare's works. Students will also be required to know the basic facts about Shakespeare's life and theater craft and will be able to identify and discuss the basic elements of comedy, tragedy, history and romance plays.

▲ **ENGL-276 Horror: Mary Shelley to Stephen King; 3 credits** The student will read and analyze a representative selection of novels and short stories which trace the inception and development of the "horror" story as a traditional, as well as continually evolving, genre.

▲ **ENGL-295 Special Project – English; 1 to 6 credits**

## English as a Second Language

### ESL-010 ESL Skills Workshop; 1-6 credits

This course is designed for ESL students who receive a "D" or an "F" in ESL 011, 021 or 031. Students will demonstrate improvement in designated skill areas which have been diagnosed as sub-standard for the course in which he or she did not earn

a grade of at least "C". Course content/competencies will be determined by the individually diagnosed needs of the student in question. These may include: oral fluency, designated grammar points and/or expository writing. The student will set up an individualized program with the instructor, and spend two-six hours per week (depending on the number of credits being attempted) with a tutor, in the ESL computer lab and/or attending ESL conversation groups. Students will also complete assignments at home. (Prerequisite: Permission of instructor)

### ESL-011 Elementary English As a Second Language I; 3 credits

This course is designed for students with limited knowledge of the English language. Strong emphasis will be in both language and culture. Grammatical patterns and syntax will be introduced with the aim that students read and write what they have learned to say and understand. This is a developmental course and will not be counted toward degree requirements.

**ESL-012 Elementary English As a Second Language II; 3 credits** Students will build upon skills acquired in the first semester course and will be able to express themselves in a variety of more complex situations in English. This is a developmental course and will not be counted toward degree requirements. (Prerequisite: A grade of "C" or higher in ESL 011 or as a result of a placement test)

**ESL-021 Intermediate English As a Second Language I; 3 credits** Students will improve their speaking, listening, reading and writing skills, demonstrating the ability to report on various aspects of American life and culture, using more complex English language patterns. This is a developmental course and will not be counted toward degree requirements. (Prerequisite: A grade of "C" or higher in ESL 012 or as a result of a placement test)

**ESL-022 Intermediate English As a Second Language II; 3 credits** Students will demonstrate the ability to speak, read and write English, and to discuss and evaluate American culture, customs and current events. They will also interact with native speakers of the language. This is a developmental course and will not be counted toward degree requirements. (Prerequisite: A grade of "C" or higher in ESL 021 or as a result of a placement test)

**ESL-031 Advanced English As a Second Language I; 3 credits** Students will demonstrate mastery of vocabulary and structural patterns that are used by educated native speakers of English. They will participate in group problem-solving discussions in English and develop free writing skills. This is a developmental course and will not be counted toward degree requirements. (Prerequisite: A grade of "C" or higher in ESL 022 or as a result of a placement test)

**ESL-032 Advanced English As a Second Language II; 3 credits** Students will use increasingly complex vocabulary and grammatical patterns. They will make oral presentations and write on topics of interest, with a minimum of errors in syntax and language usage. This is a developmental course and will not be counted toward degree requirements. (Prerequisite: A grade of "C" or higher in ESL 031 or as a result of a placement test)

**ESL-035 American Culture for ESL; 3 credits** This course is designed for students of English as a Second Language who are presently at the Advanced (ESL

031-032-225) level. American culture and cross-cultural communication are the vehicles used for improving students' English proficiency in speaking, reading and writing. The information and skills taught are intended to help students understand and adapt to American culture and to cultural differences affecting their communication with speakers of American English. This is a developmental course and will not be counted toward degree requirements. (Prerequisite: ESL 012 or permission of instructor)

■ **ESL-225 (C) Advanced English Composition for Non-Native Speakers; 3 credits** This course is designed for students who have attained near-native proficiency in oral skills, but whose writing skills need to be developed further before they embark upon college-wide courses which require writing. (Prerequisite: A grade of "C" of higher in ESL 032 or as a result of a placement test)

## Environmental Science

- **ENVR-101 (SC) Physical Geology; 4 credits** Students will discuss the nature of the materials that make up the earth: rocks and minerals. They will discuss their distribution and origin, and the processes and forces that alter, transport and distort these materials and the way in which they become involved in the development of the landscape. All classroom and lab activities are scheduled at Brookdale's Sandy Hook Laboratory, Gateway National Recreation Area. (Prerequisite or Corequisite: MATH 021, MATH 025 or passing score in algebra on Basic Skills Test)
- **ENVR-102 (SC) Historical Geology; 4 credits** This course will explore the geological history of the earth, focusing on the geological evolution of the North American continent. Topics will include plate tectonics, erosion and deposition and the evolution of plants and animals. There will be two required field trips during class time to Pennsylvania and northern New Jersey to collect fossils and observe geological phenomena. (Prerequisite: ENVR 101)
- **ENVR-105 (SC) Environmental Studies; 3 credits** The student will be able to describe and discuss the earth and its deteriorating environment, basic ecological relationships, man's interdependence with the physical and social environment and the responsibility to this system. This is a general

education course for non-science majors. (Prerequisites or Corequisites: MATH 021 or MATH 025 and READ 092 or READ 095 or passing scores in algebra and reading on Basic Skills Test)

■ **ENVR-106 (SC) Environmental Geology; 3 credits** This course will examine cultural attitudes toward the environment; how to predict and avoid natural hazards such as earthquakes, volcanoes, landslides and coastal flooding; problems with our water resources; how to deal with land-based disposal of waste materials; how the physical environment impacts on our health; how to find and exploit energy and natural resources from within the earth; and how to make decisions for global change including proper land management. (Prerequisite or Corequisite: MATH 022 or MATH 025 and READ 095 or passing scores in algebra and reading on Basic Skills Test)

● **ENVR-111 (SC) Oceanography; 4 credits** Students will be aware of the development of Oceanography as a science and its importance in today's rapidly changing world. This course will provide the basic concepts associated with the sciences utilized in marine study: geology, biology, physics and chemistry. Course work will include the use of marine instruments on a boating trip, lab instrument use, identification of marine organisms, scheduled marine study along the shoreline and lab exercises designed to supplement the above-listed sciences. All classroom and lab activities are scheduled at Brookdale's Sandy Hook Laboratory, Gateway National Recreation Area. (Prerequisite or Corequisite: MATH 021, MATH 025 or passing score in algebra on Basic Skills Test)

■ **ENVR-115 (SC) Dinosaurs; 3 credits** In this course, students will learn how early paleontologists discovered dinosaurs through fossils and study these wonderful animals' ways of life: their feeding strategies, their unique behavior and the environment in which they lived. Students will discover how unexpectedly diverse dinosaurs were. The dinosaurs' origins and evolution will be discussed, especially theories of their mysterious extinction. The course includes an optional field trip on a weekend day to the American Museum of Natural History's world renowned Dinosaur Halls in New York City. (Prerequisites: MATH 021 or MATH 025 and READ 095 or passing scores in algebra and reading on Basic Skills Test)

● **ENVR-121 (SC) Physical Geography; 3 credits** The student will discuss physical environmental factors and their influences on human activity. There are sections covering weather, the oceans, landforms, soil, vegetation and the effects of all these things on human evolution and society. (Prerequisites: MATH 021 or MATH 025 and READ 095 or passing score in algebra and reading on Basic Skills Test)

● **ENVR-125 (SC) Meteorology; 3 credits** This is a non-lab science course aimed at both science and non-science majors. It will familiarize the student with our weather and climate and the events that influence them. The course will also help the student understand natural disasters like hurricanes, northeasters and tornadoes, as well as problems resulting from human activities such as air pollution. Find out if global warming is a reality or a myth, what the difference is between El Nino and La Nina and should we care? (Prerequisites or Corequisites: ENGL 095 and MATH 021 or MATH 025 or passing scores in English and algebra on Basic Skills Test)

■ **ENVR-126 (SC) Introduction to Geographic Information Systems (GIS); 3 credits** Introduction to Geographic Information Systems (GIS) is a non-lab science course aimed at both science and non-science majors. Although there is no separate lab time scheduled, this course will focus on computer mapping exercises, so it will meet in a computer lab. The student will be introduced to the field of GIS and how GIS relates to the real world. After learning mapping basics, the student will learn how data is gathered, stored, edited, mapped and analyzed using GIS. Since GIS is now important in almost every aspect of our technologically oriented world we will examine important applications of GIS in various fields of study including environmental studies, health, business, geography and criminal justice. (Prerequisites: MATH 021, MATH 025 or passing score in algebra on Basic Skills Test; READ 095 or passing score in reading on Basic Skills Test; Knowledge of Word or COMP 129 or permission of instructor)

■ **ENVR-205 (SC) Introduction to Coastal Geology; 4 credits** This course will explore the geologic processes that have formed and continue to change the coastlines of New Jersey. The class and labs will study the various components of the New Jersey coast: headlands, barrier beaches, spits, barrier islands and estuarine beaches.

Management aspects will be integrated throughout as well as field and mapping techniques. (Prerequisite: OCNG 111 or GEOL 101 or permission of instructor)

■ **ENVR-212 (SC) Coastal Zone Management; 4 credits** Students will demonstrate knowledge of shore area terrestrial and marine environments, identify resources (their use/misuse) and study conservative alternatives to the above areas. This course offers techniques for monitoring pollutants, on-site visits to industries, test laboratories, treatment plants and field study sites. The course uses the interdisciplinary involvement of all other sciences and non-sciences related to the study of the shore environment. (Prerequisites: ENVR 111 or ENVR 105)

▲ **ENVR-295 Special Project – Environmental Sciences; 1 to 4 credits**

▲ **ENVR-299 Environmental Science Internship; 1 to 6 credits** Students will work in an internship related to environmental studies and complete internship learning objectives under faculty supervision. Approval of instructor and Division Chairperson required. (Prerequisites: ENVR 105, OCNG 111 or related science course and approval of instructor and Career Services Representative)

## Fashion Merchandising

▲ **FASH-121 Fashion Merchandising; 3 credits** The student will explore the nature of fashion, the way in which it develops and the environmental influences on the movement of fashion. Students will delve into all aspects of production of apparel and accessories from fiber to finished garment. (Prerequisite: READ 092, READ 095 or passing score in reading on Basic Skills Test)

▲ **FASH-122 Textile Science; 3 credits** Students will study textile materials with emphasis on factors which affect the hand, appearance and performance. Students will learn the properties of a wide variety of textile fabrics and dyeing and finishing techniques. (Prerequisite: READ 092, READ 095 or passing score in reading on Basic Skills Test)

▲ **FASH-205 Merchandise Planning & Control; 3 credits** Students will study the essential concepts, practices, and mathematical procedures involved in profitable

merchandising. They will learn the fundamental tools of the trade, including retail pricing, six-month merchandising plans, open-to-buy, and the retail method of inventory, through practical applications. (Prerequisite: MATH 015 or passing score on Basic Skills Test)

- ▲ **FASH-212 Visual Merchandising and Display; 3 credits** Students will apply the principles and methods of displaying, promoting, and merchandising fashion apparel and accessories. They will analyze and critique displays of fellow students as well as displays created by professionals for area retailers. Through comprehensive projects, students will demonstrate and present methods of displaying merchandise and develop a basic understanding of the use of showcases, equipment, materials and lighting in creating effective displays. Students are required to participate in field trip exercises and will need a camera (film or digital) and access to a computer. (Prerequisites: A grade of "C" or higher in FASH 121 and MRKT 111)
- ▲ **FASH-213 Buying; 3 credits** Students will study the principles of selection, sources of buying information and the responsibilities of buyers in different types of retail firms. They will analyze fashion trends and consumer motivation and their effect on retail merchandising. The student will use basic merchandising arithmetic in planning purchases and in merchandising goods. (Prerequisites: A grade of "C" or higher in FASH 121 and MRKT 111)
- ▲ **FASH-223 Fashion Coordination; 3 credits** Students will analyze sources of fashion information and present findings as fashion shows, fashion clinics, bulletins and fashion reporting. They will study functions of fashion coordination in merchandising and the areas of fashion newspapers and magazines. (Prerequisites: A grade of "C" or higher in FASH 121, FASH 122 and MRKT 111)
- ▲ **FASH-224 Case Studies and Executive Development In Fashion Merchandising; 3 credits** The student will develop techniques in problem-solving on a middle management level. The student will gain experience in decision-making through the case study method in areas of buying, selling, personnel, sales promotion, vendor/store relations, and own-brand and exclusivity. The student will also develop basic skills in supervision and leadership. (Prerequisites: A grade of "C" or higher in FASH 121 and MRKT 111)

- ▲ **FASH-295 Special Project – Fashion; 1 to 3 credits** Students may choose to specialize or investigate some area in greater depth by selecting 1-3 credits in this individual learning course for the major. (Prerequisites: 6 credits in Fashion Merchandising Program and permission of instructor.)

- ▲ **FASH-299 Fashion Merchandising Internship; 3 credits** Students will work in a job related to their program, participate in programs on campus and complete an internship workbook based on the work experience gained. (Prerequisites: 30 credits to include 15 credits of career studies, permission of instructor and Career Services Representative; Corequisite: HUDV 115)

## Fitness and Recreation

- ▲ **FITN-105 Personal Fitness; 2 credits** The course has two components: an exercise component and a classroom component. The course will cover such topics as: The Risk Factors & Heart Disease, The Health and Skill Components of Fitness, Aerobic & Anaerobic Exercise, Basic Nutrition and Weight Control. The students will undergo a fitness evaluation and a prescribed personalized exercise program designed to improve the overall level of fitness. Students 35 and over who use the Fitness Lab must have medical clearance as follows within three months prior to testing: 35-39, complete physical including electrocardiogram at rest; 40 and over, complete physical including stress electrocardiogram. Costs of tests are at the student's expense. (FITN 105 and FITN 106 cannot be taken at the same time).
- ▲ **FITN-106 Fitness Workouts; 1 credit** The student will be able to identify basic exercises and relate them to individual needs. A personal exercise program will be developed for each student. There is no diagnostic testing and beginning work loads are prescribed at low levels. Students 35 and over who use the Fitness Lab must have medical clearance as follows within three months prior to testing: 35-39, complete physical including electrocardiogram at rest; 40 and over, complete physical including stress electrocardiogram. Costs of tests are at the student's expense. (FITN 105 and FITN 106 cannot be taken at the same time).
- ▲ **FITN-116 Low-Impact Aerobics & Body Sculpting; 1 credit** Students will work toward improving their cardiovascular fitness

through aerobic dance as well as improving their muscular strength and endurance through moderate resistance and conditioning exercises. Additional emphasis will be placed on weight control and nutrition.

- ▲ **FITN-117 Health, Exercise and Weight Management; 3 credits** The student will be able to identify and apply the principles of health such as preventing heart disease, alcoholism and drug abuse as they apply to various ages and settings. Other topics deal with concepts on nutrition and weight management, current health and disease problems. Students 35 and over who use the Fitness Lab must have medical clearance as follows within three months prior to testing: age 35-39, a complete physical exam including electrocardiogram at rest; age 40 and over, a complete physical exam including stress electrocardiogram. Cost of tests are at the student's expense. Participants using exercise equipment in the Fitness Center must follow the medical guidelines that are in place.
- ▲ **FITN-118 Step Aerobics and Body Sculpting; 1 credit** Students will work toward improving their cardiovascular fitness through step aerobics and body sculpting. Additionally, they will work on improving their muscular strength and endurance through the use of dumbbells, dynabands and floor work.
- ▲ **FITN-120 Exercise Science & Sports Conditioning; 2 credits** This course will enable the student to describe common sports injuries and explain basic principles of sports rehabilitation. This course details physical conditioning and training for the athlete as well as nutrition that facilitates sport performance. Other topics include behavioral and psychological concerns pertinent to the athlete, general health and environmental considerations and acclimatization in athletics.
- ▲ **FITN-121 Golf I; 1 credit** The student will demonstrate the rules, knowledge and basic skills of golf, i.e., grip, address, stance, posture and swing.
- ▲ **FITN-122 Golf II; 1 credit** Golf II builds on the fundamentals introduced in Golf I. This advanced course will lead the student from perfecting fundamental strokes into the realm of challenge shots. Each objective is an easy transition from the one before. As the student progresses, the student will learn to increase his/her options for approach shots, increase ability to read greens more

accurately, as well as to use mental focus and visualization to hit more consistently and confidently. (Prerequisite: FITN 121 or permission of instructor. Student must possess their own golf clubs and purchase county golf ID card and green fees)

- ▲ **FITN-131 Beginning Swimming; 1 credit**  
The student will identify and apply the primary strokes and skills. This is for beginners or non-swimmers who cannot float or tread water for one minute.
- ▲ **FITN-132 Intermediate Swimming; 1 credit**  
Students will demonstrate proper skill in the following basic strokes: crawl, back stroke, side stroke and breast stroke.
- ▲ **FITN-141 Tennis I; 1 credit** For beginners or non-tennis players, students will demonstrate the fundamentals of tennis, including the rules and etiquette of the game. They will also be able to demonstrate the basic skills of the forehand, the backhand and the serve.
- ▲ **FITN-142 Tennis II; 1 credit** A continuation of FITN 141 in which the student will demonstrate the advanced techniques and strategies of the game.
- ▲ **FITN-151 Karate: Self Defense; 2 credits**  
The student will demonstrate the basic skills and techniques of empty-handed self-defense, including blocking, punching, kicking and free sparring. The student will also learn the history and philosophy of karate and tournament rules.
- ▲ **FITN-152 Intermediate Karate; 2 credits**  
Students will develop further control in the execution of basic techniques through free sparring. They will also be able to identify and execute intermediate karate-as-self-defense techniques, including blocks, kicks and punches, and learn one kata (prearranged form). (Prerequisite: FITN 151 or instructor's approval)
- ▲ **FITN-155 Self Defense; 1 credit** The student will learn and practice simple but effective techniques and strategies of self-defense. Guest speakers and visual media will demonstrate a variety of methods of individual self-defense.
- ▲ **FITN-157 T'ai Chi; 1 credit** The student will learn and demonstrate an understanding of basic skills of Chinese T'ai Chi, the graceful dance of warriors. Emphasis will be on meditation and graceful movements which are designed to develop flexibility, balance and muscle tone.

▲ **FITN-158 Kickboxing; 1 credit** This course will provide students with proper basic kicking and punching techniques to prevent injuries. Students will use various techniques to improve cardiovascular fitness and muscle tone

▲ **FITN-161 Yoga I; 1 credit** Students will learn and demonstrate an understanding of Hatha yoga thereby enhancing physical health and mental wellness. By performing beginner and intermediate yoga postures students will develop flexibility and balance, increase muscle strength and tone, exercise the spine, release toxins by stimulating the lymphatic system, and increase self-confidence and overall energy.

▲ **FITN-162 Yoga II; 1 credit** Students will deepen their understanding of Hatha Yoga and actively maintain achieved physical health and mental wellness. The students will perform intermediate and advanced yoga postures and further develop flexibility, balance, strength, self confidence and overall energy. (Prerequisite: FITN 161 or approval from the instructor)

▲ **FITN-167 Weight Training; 1 credit**  
Students will use both free-weight and resistance training machines to develop strength and muscular endurance. Students will also be educated through lecture on various weight training topics. Programs will include use of the Fitness Lab. Students 35 and over must have medical clearance. Students 35-39 must have a complete physical including an electrocardiogram at rest. Students 40 and over, a complete physical including a stress electrocardiogram. Costs of the tests are at the students' expense.

▲ **FITN-177 Community First Aid and Professional CPR; 2 credits** The student will learn to give immediate care to a person who has been injured or has suddenly been taken ill. The course includes self-help and home care if medical assistance is not available or is delayed. One-half of the course is related to cardiovascular risk factors, heart failure and cardiopulmonary resuscitation. An American Red Cross Certification in C.P.R. and First Aid may be issued upon successful completion of this course. There is a minimal charge for certifications.

▲ **FITN-233 Lifeguard Training; 1 credit**  
Students will identify and apply the basic skills necessary to take care of themselves in water emergencies and to aid or rescue anyone in danger of drowning. National

Certification by the Red Cross or the YMCA is optional at additional cost. Professional C.P.R. and First Aid is required and must be obtained for certification.

▲ **FITN-235 Scuba I; 2 credits** The student will master the fundamental skills, techniques and practices of skin and scuba diving. The course requires the initial purchasing of mask, snorkel, fins, wet suit hood, boots and gloves. The student may opt to become nationally certified with a professional association of diving instruction. This will require the rental of some other equipment, i.e., a full wet suit and any certification fees.

▲ **FITN-245 Personal Training; 3 credits** This lecture course prepares students to work as personal trainers. The course work focuses on the qualifications and responsibilities of a personal trainer. Topics include nutrition and weight management, screening and evaluating clients for safe participation in an individual exercise program; designing and implementing exercise prescriptions for a diverse population and successful goal attainment plus functional anatomy and exercise physiology. Successful completion of this course prepares the student to take the National Council on Strength and Fitness (NCSF) board certification exam to receive the NCSF - Certified Personal Trainer certification. (Corequisites: Any 100 level biology course or equivalent, or permission of the instructor and Fitness Coordinator)

▲ **FITN-278 Red Cross Emergency Response; 3 credits** The purpose of the American Red Cross Emergency Response course is to provide the first responder with the knowledge and skills necessary in an emergency to help sustain life, reduce pain and minimize the consequences of injury or sudden illness until more advanced medical help can arrive. The course content and activities will prepare participants to make appropriate decisions about the care to provide in an emergency. The course teaches the skills a first responder needs to act as a crucial link in the emergency medical services (EMS) system.

▲ **FITN-295 Special Project – Physical Education; 1 to 3 credits**

▲ **FITN-299 Internship in Fitness and Recreation; 3 credits** The student will participate in a field experience in a local recreation department, designed to provide nine to 18 hours per week of on-the-job experience. (Prerequisite: Permission of

instructor and Career Services Representative)

## Food Service Management

- ▲ **FSMN-105 Introduction to Food Service; 3 credits** Students will explore career opportunities in the management of the food industry. Students will gain knowledge in front and back of the house management, communications, time management, applying for a job, interviewing and business forms. Students will get an introduction to some legal regulations that govern the industry, such as sexual harassment and the Americans with Disabilities Act.
- ▲ **FSMN-115 Sanitation & Safety; 1.50 credits** Students will obtain an understanding of standards for sanitation that are applicable to all aspects of food service and food industry operations. The course covers microbiology and foodborne illnesses, sanitizing equipment and facilities, pest control, HACCP and protecting food during preparation, storage and service. An extensive unit on safety will be included. Students can earn both the New Jersey State Department of Health Food Service Managers Sanitation Certificate and the SERV-SAFE certificate upon successful completion of this course. (Prerequisite: READ 092, READ 095 or passing score in reading on Basic Skills Test)
- **FSMN-134 (SS) Cultural Aspects of Food and Diet; 3 credits** Students will gain an understanding of the various foodways of different cultural groups and the religious, socioeconomic and geographic influences on food selection and diet. Through the use of music, art, clothing, artifacts and recipes, students will explore the heritage of Native American Indians and the immigrants who settled in the United States. Food, food preparation techniques, tools and equipment, menu patterns and the culture of these people will be explored through lectures and discussions. The student will develop an awareness of the world's different cuisines and how they have influenced not only the foods that they eat, but the food customs of the United States. Emphasis is placed on development of French and Italian terminology as a tool in understanding menu, preparation and recipe terms. The student will be able to correctly pronounce, spell and translate frequently used French and Italian culinary terms. Students will

become aware of the present and future concerns over the adequacy of the world food supply and the choices available to combat hunger.

- ▲ **FSMN-214 Layout and Design of Food Service Units; 3 credits** Students will be able to utilize manual drafting techniques to design kitchen, dining, warewashing and pantry areas of a food service operation. Working from a market feasibility study, the students will develop the physical space needs and equipment specification. Work simplification, traffic flow and productivity factors will be stressed. Additional lab time is required.
- ▲ **FSMN-221 Hospitality and Restaurant Law; 3 credits** The purpose of this course is to introduce the students to many legal aspects of the Hospitality and Restaurant field. Through learning experiences in this course, students will gain a better understanding of the laws and regulations governing this industry. This understanding will assist the student in planning his/her career as an entrepreneur in the field of hospitality. (Prerequisites: FSMN 105; and READ 095 and ENGL 095 or passing scores in reading and English on Basic Skills Test)
- ▲ **FSMN-225 Cost Control for Food Services; 3 credits** Students will make "back-of-the-house" management decisions based on the analysis of data recorded on control forms, profit and loss statements, and balance sheets. Emphasis will be given to purchasing, receiving, storing, inventory control, portion control, waste control, and cost control as applied to materials, labor, and overhead. (Prerequisite: MATH 015 or passing score in computation on Basic Skills Test)
- ▲ **FSMN-238 Topics in Food Service; 1 credit** This course will change focus each time it is offered to reflect current Food Service industry trends and topics. The instructor, through industry papers, magazines, and research will determine the course topics. Students will apply concepts learned in cost control, management, front-of-the-house management and service, sanitation, and layout and design courses to make decisions about managing a Food Service operation. Field trips, computer restaurant simulation, guest lecturers, or demonstrations may be used as the catalyst for discussion and decision making. Field trips will be at an additional expense to the student. (Prerequisites: FSMN 105, FSMN 115 and FSMN 134).

- ▲ **FSMN-256 Managing Service in Food and Beverage Operations; 3 credits** Students will make "front-of-the-house" decisions based upon good management principles. Students will learn about menu development, cash and sales management, training dining room service personnel, customer relations and marketing and merchandising. "Hands-on" experience is emphasized.
- ▲ **FSMN-295 Special Project – Food Service; 1 to 3 credits** Students will identify a research project in food services, develop project objectives and complete the project through independent study. (Prerequisite: 6 credits in Food Service Program plus instructor approval)

- ▲ **FSMN-299 Food Service Internship; 1 to 3 credits** Students will work in an on or off-campus food service facility. The student should be involved with purchasing, receiving, storage, food preparation, service and warewashing. Students will rotate through positions. They should be scheduled for 75 hours of work for each credit earned. (Prerequisites: FSMN 105, FSMN 115; Corequisites: FSMN 225, FSMN 256)

## French

- **FRCH-101 (HU) Elementary French Communication I; 4 credits** This course is designed for students with no previous knowledge or very limited knowledge of the French language. Strong emphasis will be placed on acquiring conversational and comprehension skills, using practical and interesting situational materials that will stress both language and culture. Grammatical patterns and syntax will be introduced with the aim that students read and write what they have learned to say and understand. (This course is not open to native French speakers or to students with more than two years of French in high school, except by instructor approval)
- **FRCH-102 (HU) Elementary French Communication II; 4 credits** Students will build upon skills acquired in the first semester course and will be able to express themselves in a variety of more complex situations in French. (Prerequisite: A grade of "C" or higher in FRCH 101 or instructor approval)
- **FRCH-203 (HU) Intermediate French Communication I; 3 credits** Students will improve their speaking, listening, reading and writing skills, demonstrating the ability

to report on various aspects of life/culture in French-speaking countries, using more complex language patterns. (Prerequisite: A grade of "C" or higher in FRCH 102 or permission of instructor)

- **FRCH-204 (HU) Intermediate French Communication II; 3 credits** Students will be able to speak, read and write French and to discuss and evaluate French culture, customs and current events. They will also demonstrate the ability to use French with native speakers of the language. (Prerequisite: A grade of "C" or higher in FRCH 203 or permission of instructor)
- **FRCH-206 (HU) French Conversation and Composition I; 3 credits** This course is designed for students who have completed four semesters or more of college French and/or already possess the ability to interact with native speakers and read and write the language. Emphasis will be on improving conversational skills; discussions will bring increasingly complex grammar and vocabulary into active use. (Prerequisite: A grade of "C" or higher in FRCH 204 or permission of instructor)
- **FRCH-207 (HU) French Conversation and Composition II; 3 credits** This course is designed for students who have completed four semesters or more of college French and/or already possess the ability to interact with native speakers and read and write the language. Emphasis will be on improving conversational skills; discussions will bring increasingly complex grammar and vocabulary into active use. (Prerequisite: A grade of "C" or higher in FRCH 206 or permission of instructor)

## German

- **GRMN-101 (HU) Elementary German Communication I; 4 credits** This course is designed for students with no previous knowledge, or very limited knowledge, of the German language. Strong emphasis will be placed on acquiring conversational and comprehension skills, using practical and interesting situational materials that will stress both language and culture. Grammatical patterns and syntax will be introduced with the aim that students read and write what they have learned to say and understand. (This course is not open to native German speakers or to students with more than two years of German in high school, except by instructor approval)

- **GRMN-102 (HU) Elementary German Communication II; 4 credits** Students will build upon skills acquired in the first semester course and will be able to express themselves in a variety of more complex situations in German. (Prerequisite: A grade of "C" or higher in GRMN 101 or permission of instructor)
- **GRMN-203 (HU) Intermediate German I; 3 credits** Students will improve their speaking, listening, reading and writing skills, demonstrating the ability to report on various aspects of life and culture in German-speaking countries, using more complex language patterns. (Prerequisite: A grade of "C" or higher in GRMN 102 or permission of instructor)
- **GRMN-204 (HU) Intermediate German II; 3 credits** Students will be able to speak, read and write German and to discuss and evaluate German culture, customs and current events. They will also demonstrate the ability to use German with native speakers of the language. (Prerequisite: A grade of "C" or higher in GRMN 203 or permission of instructor)

## Graphic Design

- ▲ **GRPH-101 Typography I; 3 credit** Students will learn skills that will enable them to specify typography, produce professional lettering and render typography for visual layouts.
- ▲ **GRPH-102 Typography II; 3 credits** Utilizing the skills acquired in GRPH 101, students will begin to create and design visual layouts using traditional techniques. In addition, the computer software Adobe Illustrator and QuarkXpress will be used to set type and arrange images for more comprehensive projects. These layouts will be based on concept thinking, advertising campaigns, etc. Emphasis will be placed on craftsmanship and originality. (Prerequisite: A grade of "C" or higher in GRPH 101)
- ▲ **GRPH-115 Illustration; 3 credits** Students will explore both traditional and non-traditional techniques that will expand their ability to adapt their styles to various illustration assignments. (Prerequisite: ARTS 111)
- ▲ **GRPH-120 Introduction to Digital Media Design; 3 credits** This course is designed to comprehensively cover computer design issues. Computer imaging, color, vector graphics, plus a variety of design software will be addressed. Design assignments are

directed toward a variety of output media, including print, and interactive/online applications. Additional lab time is expected in this course. This course does not offer the pass/no credit grade or extra credit. Previous experience with computers is beneficial.

- ▲ **GRPH-204 Graphic Design Production; 3 credits** Students will develop the skills of the mechanical artist who prepares final camera-ready art for the printer. They will learn inking, paste-up skills, color separations, etc. In addition, the computer will be used for pre-press production processing. Software used will be QuarkXpress and Adobe Illustrator. (Prerequisites: A grade of "C" or higher in GRPH 101, GRPH 102 and ARTS 111)
- ▲ **GRPH-216 Graphic Design Techniques; 3 credits** In this advanced course, students will explore the infinite variety of methods, materials and equipment available to solve visual design problems. This information will be utilized in the communication of ideas, promotion and merchandising of products, from concept to final presentation. (Prerequisites: A grade of "C" or higher in GRPH 101, GRPH 102 and GRPH 204)
- ▲ **GRPH-295 Special Project – Communication Design; 1 to 6 credits** Students will design a project of advanced study. Students must have completed previous course work in the subject area and must meet with an appropriate instructor before registering. (Prerequisites: GRPH 101, GRPH 102, GRPH 204, GRPH 216)
- ▲ **GRPH-299 Communication Media Internship; 1 to 6 credits** Students will practice skills in graphic design and photography in a real-world experience. They will work with an experienced practitioner who will guide and supervise their progress. This course may be repeated for credit.

## Health Information Technology

- ▲ **HITC-121 Introduction to Health Information Technology; 3 credits** This course introduces the student to the health care delivery system and the development, content, format, analysis and use of medical records. It addresses the function of the medical record department and the role of the medical record technician. In addition, the relationship between an accurate and comprehensive medical record and reimbursement is discussed.

▲ **HITC-122 Health Information in Alternative Systems; 4 credits** In this course, the student is introduced to the use and function of the health record in non-acute care settings. Alternative sites include long term care, psychiatric settings, rehabilitation services and cancer programs. In addition, regulatory and accreditation standards will be discussed.

▲ **HITC-123 Health Information and the Law; 3 credits** This course focuses on the legal and ethical aspects of health information technology in the United States. The roles of various health care providers and governmental agencies are covered as well as health care legislation. There is an emphasis on the function of the medical record department in relation to risk management.

▲ **HITC-124 Pathophysiology; 3 credits** This course covers the structural and functional changes associated with various disease conditions. There is an emphasis on clinical manifestations and treatment. In addition the student will understand how disease affects the body as a whole.

▲ **HITC-221 Coding & Classification Systems I; 6 credits** In this course the student will study the principles of coding and classification systems with an emphasis on ICD-9-CM. Students will rotate through health information areas in hospitals and other health care facilities.

▲ **HITC-222 Health Information Documentation; 3 credits** This course introduces the student to computer applications in health information services. Data entry, display, abstracting and retrieval will be emphasized. The electronic record and future directions in information systems will also be discussed.

▲ **HITC-223 Health Information Reporting; 3 credits** This course addresses medical statistics and quality improvement. It includes topics such as sources and use of health data and computations commonly used by health care facilities. In addition quality indicators and the principles of performance improvement are covered.

▲ **HITC-224 Coding & Classification Systems II; 6 credits** In this course the student will study the principles of coding and classification systems with an emphasis on the Health Care Financing Administration's Common Procedural Coding System (HCPCS) and Current Procedural Coding (CPT). Students will rotate through health

information areas in hospitals and other health care facilities.

▲ **HITC-225 Health Information Management; 3 credits** This course addresses basic principles of supervision and management in the health information setting. Resources, procedures, planning, consultation and the role of the health information technician in the health care team will be discussed.

## Health Science

▲ **HESC-105 Medical Terminology; 3 credits** Through a study of medical language, the student will be able to build a practical, working medical vocabulary. Emphasis will be placed on understanding the significance of Greek and Latin prefixes, suffixes and verbal roots as they pertain to the human body.

■ **HESC-115 (SC) Nutrition and Health; 3 credits** Students are introduced to the basic concepts of nutrition. Emphasis will be placed on practical information that will enable students to make judgments about their food intake and gain awareness of the critical role of nutrition in health care. Concepts from biology, chemistry and physiology are used as a basis for the exploration of the role of nutrition in health.

■ **HESC-125 (SC) Stress and Everyday Living; 3 credits** An understanding of how stress affects everyday life will be discussed using examples from literature, history and the group members. Students will acquire an understanding of the causes of stress, stress management techniques, nutritional awareness and exercise programs.

■ **HESC-145 (SC) Crisis Intervention; 3 credits** Students will explore life situations that pose a threat or potential threat to an individual's coping abilities. They will discuss and practice specific strategies that have proven useful in crisis situations. Class sessions will include games, role playing and group exercises.

■ **HESC-155 (SC) Here's to Your Health; 3 credits** This course is designed to help students define their lifestyles, make decisions about that lifestyle and improve those areas that will bring them to a state of optimal health. Students are offered an opportunity to examine all the factors influencing one's health including nutritional awareness, stress management and exercise programs. The course is designed to give students the

tools necessary for achieving and maintaining an optimal healthy lifestyle.

▲ **HESC-295 Special Project – Health Sciences; 1 to 6 credits** In conjunction with the faculty, the student will develop a written independent study plan for pursuing and completing an individual, in-depth study of a relevant topic. The instructor will serve as a mentor and consultant in guiding the student through the study plan.

▲ **HESC-SP Special Project: Dental Hygiene Program; 12 to 15 credits**

## History

● **HIST-105 (HI) (CG) World Civilization I; 3 credits** The course will provide a general understanding of the chief characteristics of human history up to 1500, as exemplified by the traditional cultures of Africa, the Middle East, China, Japan, India, Central Asia, the Americas and Europe. Emphasis will be placed on the institutions, values and inter-relationships among people across the globe, and the achievements and contributions of individual civilizations to human history.

● **HIST-106 (HI) (CG) World Civilization II; 3 credits** The course will examine the major developments in human history from 1500 to the present. It will focus on the elements involved in Europe's self-transformation into a modern society as seen in its intellectual, industrial and imperialist movements, and the world wars. Emphasis will also be placed on the history of Asian, African, Middle Eastern and Latin American societies and the impact of imperialism of those cultures; their reactions to, interaction with, and finally independence from Western dominance in the 20th century will also be explored.

● **HIST-107 (HI) (CG) Contemporary World History; 3 credits** This course is designed to provide students with the framework of the contemporary world which will be discussed by examining key historical developments since 1945, including the Cold War and the fall of communism, as well as the independence movements and revolutions in Asia, Africa, Latin America and the Middle East. Relying on a variety of historical readings and current accounts, emphasis will be placed on understanding the historical readings and contemporary issues such as international conflict, the environment, human and natural resources and global cultural and economic trends.

- **HIST-108 (HI) Modern European History; 3 credits** Students will review the development of industrialism, nationalism, liberalism and socialism as background for understanding the 20th century as an age of total war. They will examine the events surrounding the two World Wars and the Cold War, the role of ideology and the emergence of modern culture in its scientific, technological, economic and artistic dimensions.
- **HIST-115 (HU) Great Persons in History; 1 credit** The student will examine the contributions of the most important people in history, such as Jesus, Confucius, Hitler, Marx, Darwin and others. The careers of major religious figures, philosophers, scientists, inventors and political leaders will be evaluated in the light of their influences on mankind's thoughts and actions in the past and present.
- **HIST-116 (HU) Vietnam: Historical Perspectives; 3 credits** In this course students will examine the culture and history of the Vietnamese people; the twentieth-century wars involving the French and Americans that took place there; the impact of these conflicts on Vietnam and America; and their legacy in the contemporary world. Two field trips will be taken to the Vietnam Era Educational Center and Vietnam Veterans' Memorial in New Jersey.
- **HIST-125 (HU) (CG) Women's History Survey: Experiences, Contributions and Debates; 3 credits** A survey of the experiences, lives and contribution of women to American history. The student will study women's changing roles through history, as well as the diversity of women's experience on a racial, ethnic and class basis. Problems and solutions women have faced in the past will be discussed with an emphasis on understanding the participation of women in America, to uncover and restore women's achievements and experiences.
- **HIST-126 (HU) (CG) Dimensions of the Holocaust; 3 credits** The student will investigate the origins, events, and outcomes of a watershed in human history – The Holocaust. Hitler's rise to power and the racial objectives in his Nazi program led to the systematic murder of millions of innocent victims. In a search for meaning and conscience in this cataclysmic event, the student will encounter additional material covering other genocides and genocidal events, e.g. The Armenian and Cambodian genocides, genocidal actions in Rwanda, Bosnia, etc. The student must attend at least two programs given by the Center for Holocaust Education. (Prerequisites: ENGL 121 and READ 095 or passing score in reading on Basic Skills Test)
- **HIST-135 (HI) American Civilization I; 3 credits** Students will identify and discuss problems, events and personalities in American history which have influenced the origins and growth of the Republic from the colonial period until the Civil War (1861). History will be viewed from many perspectives.
- **HIST-136 (HI) American Civilization II; 3 credits** Students will demonstrate an understanding of personalities, events and problems in American history from the Civil War (1865) until World War II (1941).
- **HIST-137 (HI) Recent American History; 3 credits** The student will recognize and assess the major forces that have shaped the course of American domestic and foreign policies since World War II (1945). The student will analyze the inter-relationship and consequences of foreign and domestic events.
- **HIST-138 (HU) The 1960'S: Pop Music and the Counterculture; 3 credits** Students will evaluate the history of the 1960's through an examination of the rock and folk music of the turbulent decade. The focus will be on leaders such as Bob Dylan, the Beatles, the Rolling Stones and the Doors. The emphasis will be on how music shaped and reflected the values of young people, expressed in movements such as the counter-culture, civil rights and the resistance to the Vietnam War.
- **HIST-145 (HU) (CG) African-American History I; 3 credits** Students will examine the cultural and historical themes of the African experience which dominated and influenced the evolving African-American culture during slavery. In reviewing African origins, students will study the Atlantic Slave Trade, its participants, the resulting African Diaspora and the contrasting perspectives on Africa and Africans during the Slave Trade period. The course will offer a survey of major events, issues, legislation and critical environmental factors shaping the African-American experience in Colonial America from the 1600's to the Civil War.
- **HIST-146 (HU) (CG) African-American History II; 3 credits** Students will examine the complex historical, sociocultural and environmental forces which have shaped the African-American culture and its communities in the United States. After surveying how slavery became institutionalized in Colonial America, students will focus on events, legislation and issues defining the struggles, acts of resistance, varied accomplishments and cultural experiences unique to African-Americans from the Civil War and Reconstruction Era to contemporary times.
- **HIST-155 (HU) (CG) Native American Studies; 3 credits** This course will identify and survey native peoples of the Americas from before European contact to the present. Students will have an opportunity to explore various aspects of Native American cultures. Comparative themes, issues and problems concerning them will be discussed. Presentations by Native Americans will be included. There will be an emphasis on understanding the participation of Native Americans in a world of diverse cultures.
- **HIST-202 (HU) History of New Jersey; 3 credits** This survey of New Jersey history will cover the development of New Jersey from the Native American inhabitants, the Leni Lenape, European colonization, the colonial period, the American Revolution, the Jacksonian Era, Slavery and the Civil War, the Industrial Revolution, Labor Union Movements, Immigration, Women's Suffrage, Race issues and relations, the Great Depression, World War II, as well as the rise of Victorian Leisure, tourism and motion pictures. There will be special emphasis on Ecological history, Women's history, architecture and African American history in all topics. The course will use New Jersey history as a means of understanding the major themes of United States history. Therefore, the themes of United States history, such as European Colonization, the American Revolution, Slavery, Industrialization, etc. are employed and amplified by local history. This approach will also give students a greater sense of place as New Jersey residents and will provide Education majors with a pedagogical foundation for teaching the subject. The course will include a class trip to a historical site. (Prerequisites: READ 092 or READ 095 and ENGL 095 or passing scores in reading and English on Basic Skills Test)
- **HIST-205 (HU) History of World War II; 3 credits** The student will study the military, political, social and economic history of World War II, stressing both America's role and worldwide implications. The student will investigate the causes, events and outcomes of World War II. An understanding of this cataclysmic event will also necessitate knowing the leading personalities of the conflict and their goals and motivations.

- **HIST-215 (HU) (CG) African Civilization; 3 credits** The student will describe the environmental, historical and socio-cultural factors that have shaped and continue to shape the course of human affairs in Africa. In addition, the relationship of the continent with the African Diaspora and the place of Africa in world civilization will be discussed and evaluated.
- **HIST-216 (HU) (CG) Puerto Rican Culture; 3 credits** The student will identify and discuss the historical and cultural processes which have influenced the origin and growth of Puerto Rico. The student will place major emphasis upon an analysis of the different phases of Puerto Rican history and cultural development and its impact on the character and lifestyle of the Puerto Ricans.
- **HIST-217 (HU) (CG) Modern Latin American History; 3 credits** The student will understand and discuss peoples cultures of Latin America, emphasizing the period between the wars of independence and characterizing the Latin American role in the world today.
- **HIST-218 (HU) (CG) History of Ecuadorian Society and Civilization; 3 credits** Students will demonstrate an understanding of the historical development of the political, social and economic institutions of Ecuador. They will also analyze and evaluate relations between Ecuador and its neighbors as well as other nations of the world.
- **HIST-225 (HU) (CG) Modern Asia; 3 credits** The course is an introduction to Asian civilizations from the 18th century to the present. Though the focus will be on China, Japan and Korea, the cultures of India and Southeast Asia may also be included. In the modern period a central feature of world civilization has been the interaction between Asia and the rest of the world. The course will emphasize those interactions, highlighting the era of imperialism, conflicts such as those in Korea and Vietnam, revolution and independence throughout Asia and political developments after World War II, and corresponding social and cultural change.
- **HIST-226 (HU) (CG) History of Modern Russia; 3 credits** After a survey of earlier Russian history, students will discuss the political, social, economic and intellectual events in Russia since 1800. Emphasis will be placed on the Russia Revolutions, the features of modern Soviet society and the dissolution of the Soviet Union.
- **HIST-227 (HU) (CG) Middle Eastern History; 3 credits** Increasingly, events in the Middle East have commanded more attention throughout the world. The student will understand the historical evolution of the volatile Middle East from ancient times to the crisis-ridden present. Special emphasis will be placed on such themes as pre-Islamic civilization, the rise and expansion of Islam, the conflict between modernity and tradition, the growth of Arab nationalism, the persistence of Arab-Israeli crisis and Arab rivalries, Great Power conflicts in the region and the worldwide impact of oil. The effects of the end of the Cold War will also be considered.
- **HIST-235 (HU) (CG) Immigration & Ethnicity in American History; 3 credits** Students will demonstrate an understanding of the historical experiences of immigrants before, during and after arrival in this country, including ethnic life in the United States today.
- **HIST-236 (HU) Twentieth Century American Diplomatic History Since 1900; 3 credits** Since World War II, more significant change has taken place in the United States international affairs than in all of its previous history. The student will investigate a selection of those events for opportunities to gain new insights and information to perform historical research. The accelerated events since 1950 have involved the United States in hot wars in Korea, Vietnam, Granada, Panama and Kuwait, in epoch making alliances in NATO and elsewhere, as well in diplomatic maneuvering in the Middle East, Latin America and Africa.
- **HIST-237 (HU) American Civil War; 3 credits** The student will survey all aspects of America's most tragic conflict: political, diplomatic, economic, psychological, social and religious. Military leaders, tactics, strategies and battle campaigns will also be discussed.
- ▲ **HIST-295 Special Project – History; 1 to 3 credits** The student will work independently on a project mutually agreed upon with the instructor.
- ▲ **HIST-299 Internship in History; 3 credits** The student will select from a variety of internships of a historical nature that are located within the community. (Approval of instructor and Career Services Representative is required.)

## Honors Seminar

- **HONR-290 (HU) Honors Seminar; 3 credits** Honors Seminars are interdisciplinary courses connected to, but not limited to, Honors at Brookdale. These seminars are led by professors from two or more disciplines who bring their special expertise to bear on a special topic. The emphasis is on student-student and student-faculty interaction and the development of general research skills. Seminars provide in-depth study of a topic from a number of perspectives and provide students the opportunity to bring their own experience and potential to an environment which is conducive to intellectual growth and personal enrichment. The topics of the seminars will change each semester. (Prerequisites: Usually a GPA of 3.5, but also faculty or counselor recommendation)
- **HONR-291 (HU) Honors Seminar; 3 credits** Honors Seminars are interdisciplinary courses connected to, but not limited to, Honors at Brookdale. These seminars are led by professors from two or more disciplines who bring their special expertise to bear on a special topic. The emphasis is on student-student and student-faculty interaction and the development of general research skills. Seminars provide in-depth study of a topic from a number of perspectives and provide students the opportunity to bring their own experience and potential to an environment which is conducive to intellectual growth and personal enrichment. The topics of the seminars will change each semester. (Prerequisites: Usually a GPA of 3.5, but also faculty or counselor recommendation)

## Horticulture

- ▲ **HORT-115 Soil Science; 4 credits** The student will demonstrate an understanding of the physical and chemical properties of soils including the influence of parent material, topography, climactic conditions, time and living organisms. The student will relate good soil management practices to favorable plant growth and development. **NOTE: This course is offered only in the Spring term in the even years.** (Prerequisite: High school chemistry or instructor approval)
- ▲ **HORT-125 Landscape Plant Materials I; 4 credits** The student will demonstrate the ability to identify selected non-hardy plant materials, describe their habits of growth,

maintenance and propagation, with emphasis on those materials used as ornamentals in and around residential and commercial buildings. The major groups covered are the tropicals, perennials and annuals commonly used in this area. **NOTE: This course is offered only in the Spring term.** (Prerequisite: BIOL 125 or instructor approval)

- ▲ **HORT-126 Landscape Plant Materials II; 4 credits** The student will identify selected hardy plant materials and describe their habits of growth, maintenance and propagation for use as ornamentals in landscaping. Groups of plants to be discussed include shade trees, small trees, evergreens, shrubs and groundcovers. This course is an appropriate prerequisite for the Landscape Design course. **NOTE: This course is offered only in the Fall term.**
- ▲ **HORT-135 Grounds Maintenance; 3 credits** A well-maintained residential or commercial property is pleasing to the eye, increases property values and makes a favorable impression. Those who enroll will develop appropriate landscape maintenance programs from estimating to implementation. Students will evaluate lawn and landscape planting needs. Selection and maintenance of equipment will also be reviewed. This practical course will enable the student to save money or increase profits while doing a professional job. **NOTE: This course is offered only in the Fall term in the even years.**
- ▲ **HORT-146 Great Gardens; 2 credits** The students will be able to demonstrate an understanding of garden design and the use of plant materials in regional, private and public gardens. Class discussions, presentations and videos will emphasize the history of gardens and the cultural influences on plant selection and design. Field trips to local and regional private and public gardens will provide the student with actual examples of the textbook descriptions. **NOTE; This course is offered only in the Summer I term.** (Students will pay their own admission to the gardens.)
- ▲ **HORT-151 Floral Design I; 1 credit** Students will learn skills needed to create floral designs consistent with business standards, ordering flowers, construction of pieces, pricing, selling and servicing the customer. This five-week, hands-on introductory course will focus on the history of floral design, proper care and handling of flowers, tools and equipment needed, pricing of flowers and the construction of basic designs according to industry standards.

- ▲ **HORT-152 Floral Design II; 1 credit** Students will sharpen their design skills by focusing on wedding pieces. This hands-on, five-week course will include selling, ordering, construction and set-up techniques. (Prerequisite: HORT 151 or permission of instructor)
- ▲ **HORT-153 Floral Design III; 1 credit** Students will sharpen their design skills by focusing on funeral designs. This hands-on, five-week course will also include pricing methods, funeral director constraints, delivery timing and other issues important to a major part of most floral design businesses. (Prerequisite: HORT 151)
- ▲ **HORT-185 Landscape Design; 4 credits** The student will learn the theory and principles of landscape design. Residential design will be stressed. Students will learn basic drawing techniques on the board and computer, how to analyze a site, construct site-use plans and create attractive solutions to common landscape problems. A prior knowledge of woody plant material is required. **NOTE: This course is offered only in the Spring term.** (Prerequisite: HORT 126 or permission of instructor)
- ▲ **HORT-186 Landscape Construction; 3 credits** An introduction to the design, material selection and installation of patios, decks, walls, walkways, water features and landscape lighting. Students will also study bed preparation, planting techniques, site evaluation methods and job estimating techniques. **NOTE: This course is offered only in the Spring term.**
- ▲ **HORT-225 Turf Management; 3 credits** The student will be able to identify economically important turf grass species and varieties and apply cultural practices including fertilizations, pest control, mowing and irrigation for the purpose of developing and maintaining turf for aesthetic, recreational and athletic uses. **NOTE: This course is offered only in the Spring term in the odd years.**
- ▲ **HORT-235 Plant Diseases and Pests; 3 credits** The student will identify common plant pests and diseases, signs of diseases and pest infestations, and select the appropriate method of control and prevention. Integrated pest management techniques will focus attention on alternatives to pesticide use. Participants will prepare for the Core and Category 3A and 3B pesticide licensing exams or receive pesticide applicator recertification credits upon satisfactory

course completion. **NOTE: This course is offered only in the Fall term in the odd years.** (Prerequisite: BIOL 125)

- ▲ **HORT-245 Plant Propagation; 4 credits** The student will select appropriate methods for the propagation of woody and non-woody plants and will demonstrate their effective use, including the following techniques: seeds, cuttings, layerings, grafting and budding. The student will also demonstrate a knowledge of plant structure and physiology relating to propagation. **NOTE: This course is offered only in the Fall term in the even years.** (Prerequisite: BIOL 125)
- ▲ **HORT-295 Special Project – Ornamental Horticulture; 1 to 6 credits**
- ▲ **HORT-299 Ornamental Horticulture Internship; 1 to 6 credits** Students will obtain on-the-job experience and demonstrate the mastery of horticulture skills through placement with an established business in Monmouth County for four to eight weeks, during which they are evaluated by both the employer/supervisor and the program coordinator. (Prerequisite: Permission of instructor and Career Services Representative)

## Human Development

- ▲ **HUDV-107 College Success Seminar; 1 credit** Students learn to identify and practice a variety of skills and behaviors that can foster success in college and work. They will explore their personal goals and values through individual projects, class exercises, and group interaction. This course is highly recommended for all first-time, full-time students in any program that requires less than 66 total credits. This course should be taken in the student's first semester at Brookdale.
- ▲ **HUDV-108 Achievement Motivation; 1 credit** Students will study achievement patterns and behaviors and apply this understanding to their own lives. Also there will be an emphasis on achievement goal setting and time management skills. The need to achieve will also be studied in light of other needs of the personality.
- ▲ **HUDV-109 Human Development Seminar; 3 credits** By exploring personal strengths, values and motivations, participants will develop a more positive self concept and

gain experience in setting personal goals that are both realistic and rewarding. There will be some free discussion involved, but most sessions are structured experiences.

- ▲ **HUDV-115 Career Development Seminar; 3 credits** Students will understand the process and utilization of materials and data in making career decisions. They will be able to identify the strengths and weaknesses of their life goals, relating them to a career plan of action. They will be able to locate and utilize various sources of occupational and transfer information and career-planning literature. They will have an understanding of the practical job-seeking skills to become successfully employed.

## Human Geography

- **HGEO-105 (SS) (CG) Human Geography; 3 credits** Students will study the physical global environment focusing on the interaction of resources and cultural variables such as population patterns, language, religion, social customs, economic and political development.

## Humanities

- **HUMN-105 (HU) Technology and Society; 3 credits** This course is an interdisciplinary investigation of the sources of technological invention, the impact of technology on society and the prospects for controlling technological change. Students will demonstrate recall and understanding of technological history, sufficient technological literacy to consider current issues and the ability to investigate a related topic in depth.
- **HUMN-125 (HU) The Creative Process; 3 credits** This Humanities interdisciplinary course introduces a variety of creative processes to equip the student to become a more informed, responsive and creative audience for all the arts. The course is equally useful to all students because the amount of experience with, or prior knowledge of, the arts makes little difference in the student's ability to complete the requirements of learning from the course. Artists from the College and community will come to class and discuss their work in process. Also, students will visit studios and workshops, attend rehearsals and meet practicing artists from the College and community.
- **HUMN-129 (HU) (CG) Issues in Women's Studies; 3 credits** This course provides an exploration of the field of women's studies and includes an analysis of women's lives through readings in a wide range of topics from the new scholarship on gender. Students will be requested to write response papers as well as to read from a variety of texts. Research writing will also be included. Guest speakers will contribute a variety of perspectives from different areas of women's experiences.
- **HUMN-215 (HU) Propaganda and Critical Thinking; 3 credits** Students will learn to recognize, analyze and counteract the psychological, social and language components of propaganda in a variety of media including books, newspapers, magazines, radio, television, film, theater and the visual arts. Through readings, discussion and projects, students will react critically to propaganda techniques employed in such fields as politics, economics, education, consumer concerns, social and vocational affairs. (Prerequisite: Completion of READ 091 and READ 092 sequence or READ 095, or passing score in reading on Basic Skills Test)
- **HUMN-230 (HU) (CG) Women and Science; 3 credits** This course provides an interdisciplinary examination of women's relationship to the natural sciences, mathematics and technology. The social construction of gender and race will be examined along with a feminist critique of science. The history of women in science and the experiences of contemporary women scientists will be included along with the impact of science and technology on women's lives. Course materials include case studies and autobiographical narratives, films, as well as theory and sociological analysis. (Prerequisite: ENGL 121)
- ▲ **HUMN-299 Humanities Internship; 3 credits** This internship is designed for Humanities majors who wish to earn credit while working in a career field related to their major or career goal. Students may use this experience to apply their classroom skills and theories to real work situations in the Humanities area. Internship requirements will be discussed with the appropriate Humanities instructor prior to a student's participation. (Prerequisite: Completion of at least one semester of college level course work and prior approval of instructor and Career Services Representative)

## Information Literacy

- **INFL-105 (T) Information Literacy in a Connected World; 3 credits** This course will help students develop the skills needed to become information literate. The curriculum will define information and the role that information plays in the educational process, along with exploring the different types and formats of sources of information, and show students how to search and retrieve information in electronic formats. This course will also help students investigate bibliographic and full-text databases and discover what information is included in electronic databases, how it is organized and how it is assessed. The computer will be used as a learning and research tool in this course. The student will assess the appropriateness of the information found and how it meets the needs of the task. Please note that this course may not transfer. Please see your counselor for verification. (Prerequisites: READ 095 or completion of READ 091 & READ 092 sequence and ENGL 095 or passing scores in reading and English on Basic Skills Test)

## Interdisciplinary Studies

- **IDST-235 (SS) Human Sexuality: Physical and Developmental Aspects; 3 credits** Knowledge of one's body is a right and responsibility. Students will study sex anatomy, the physiology of sex and reproduction and the development of the person as a sexual being.
- **IDST-236 (SS) Human Sexuality: Social and Psychological Aspects; 3 credits** Sexual behavior is strongly influenced by and, in part, controlled by social and psychological considerations. Students will examine areas of gender identity, legal aspects of sexual behavior, cross cultural patterns of sexuality, sexual relationships and social/psychological theories of sexual development. Auditing of this course is not permitted.
- **IDST-255 (SS) Leadership; 3 credits** The central focus of this course is the development of leadership ability. The course provides a basic understanding of leadership and group dynamics theory, and assists the participant in developing a personal philosophy of leadership, along with an awareness of the moral and ethical

responsibilities of leadership, and an awareness of one's own ability and style of leadership. It provides an opportunity to develop essential leadership skills through study and observation of the application of these skills. The course includes the study of leadership potential and to engage in productive leadership behavior. This course is for individuals who wish to develop their leadership skills. Designed to aid students in increasing their understanding of themselves and the theories and techniques of leadership and group process, the course will integrate theoretical concepts with the reality of application within a group setting. (Prerequisites: ENGL 121 and READ 095 or passing score in reading on Basic Skills Test)

▲ **IDST-295 Special Project – Interdisciplinary Studies; 1 to 6 credits**

## Interior Design

▲ **INTD-150 Design Elements for Interior Environments; 3 credits** The purpose of this course is to provide students with the working knowledge of design characteristics and the elements and principles of design as it relates to the interior environment. In a studio setting, two-dimensional relationships will be explored through a variety of media. Emphasis will be on students developing an understanding of the design process and demonstrating their ability to design and create compositions based on these fundamental principles. Two and one half hours of additional lab time required. Field trips may be required.

▲ **INTD-151 Introduction to Interior Design; 3 credits** This course introduces students to the diversified field of interior design. Through class lecture and discussion, students will gain an overall view of various aspects of the profession and a basic understanding of the role of the designer. Students will be introduced to the mechanical and aesthetic tools of the designer, and will develop a project that will demonstrate how a job would be presented to a client. Two and one half hours additional lab time required. Field trips may be required. (Prerequisite or Corequisite INTD 152)

▲ **INTD-152 Drafting and Graphic Presentation for Interior Design I; 3 credits** Students will be introduced to basic tools of drafting and graphic presentation. Students will create a set of drawings and plans necessary for the installation of

an Interior Design project. Two and one half hours lab time required. Field trips may be required. This course can be taken in conjunction with INTD 151.

▲ **INTD-153 Drafting & Graphic Presentation for Interior Design II; 3 credits** The purpose of this class is to introduce the student to advanced drawing and presentation techniques utilized by the professional designer. This mixed media course will emphasize both freehand drawing and drafting skills, rendering techniques and variations on the creation of presentation materials. Students will have a series of exercises to complete (and compile for their portfolio) in order to develop competency with their materials. Students will then apply their skills to their semester project. Field trips may be required; two and one half hours lab time is required. (Prerequisite: A grade of "C" or higher in INTD 152)

▲ **INTD 155 Illustrative Sketching for Interior Environments; 3 credits** The purpose of this course is to help the student develop sketching skills, which are useful to the designer as a tool in design development, as well as a means of effectively communicating ideas to others. Specifically, the student will learn techniques for drawing interior spaces. These sketches provide the designer with a means of rapid visualization of the intended design concept. This allows for critical analysis and improvement of the design before more technical drawings are completed. They also serve as a basis for all future working and presentation drawings.

▲ **INTD-161 History of Furniture and Interiors I; 3 credits** The purpose of this course is to introduce students to the historical development of furniture and interiors. Through a series of slides, lectures, field trips and hands-on projects, the student will explore stylistic developments, ornamentation, motifs and function of furniture forms from ancient Egypt through the Renaissance. As a result of this exploration, students will be able to identify major furniture styles and place them within their historical and cultural context. Field trips required. (Prerequisites: ENGL 095 and READ 095 or READ 092 or passing scores in English and reading on Basic Skills Test)

▲ **INTD-162 History of Furniture & Interiors II; 3 credits** The purpose of this course is to introduce the student to the historical development of furniture and interiors. Through a series of videos, slides, lectures, field trips and hands-on projects, the

student will explore stylistic developments, ornamentation, motifs and function of furniture forms from the Renaissance through the Twentieth Century. As a result of this exploration, the student will be able to identify major furniture styles and place them within their historical and cultural context. Field trips required. (Prerequisite: A grade of "C" or higher in INTD 161)

▲ **INTD-225 3-D Architectural CAD; 4 credits** The student will be presented with a comprehensive course in 3-D Architecture. The student will acquire the skills necessary to create photorealistic images, animations and construction documents. The assignments will focus on typical interior design and architectural applications. Students will create buildings in 3-D using a dedicated 3-D architectural package. Integrated and object-oriented 3-D CAD is becoming the mainstream design and documentation tool for architectural practices. Traditional drafting-based systems are being phased out in favor of 3-D model-based solutions. (Prerequisites: Any CADD course or computer literacy)

▲ **INTD 245 Codes and Standards for Interiors; 1 credit** The purpose of this course is to introduce students to the various codes and standards that must be observed in process of planning interior environments. Students will become aware of the purpose of building codes, process of code adoption, code agencies, and relevant terminology. The student will develop an understanding of how to apply building codes and standards in interiors. Field trips may be required.

▲ **INTD-251 CAD for Interior Design; 3 credits** This course provides students with an opportunity to utilize the personal computer to design interior spaces. Students will employ skills developed in Drafting and Graphic Presentation for Interior Design I. Students will be introduced to primary software functions to produce drawings and will use a plotter to produce finished drawings. Students will need to dedicate additional time to work in the lab to complete assignments. Field trips may be required. (Prerequisite: A grade of "C" or higher in INTD 152)

▲ **INTD-252 CAD for Interior Design II; 3 credits** The purpose of this course is to expand on the CAD skills developed in INTD 251. Aspects of three dimensional drawing and computer rendering will be explored using AutoCAD 2000 and 3-D Studio Viz software. The focus of semester projects

will be on building interior architecture, furnishings and finishes. (Prerequisites: INTD 152 and INTD 251)

▲ **INTD-253 Interior Design Studio I;**

**3 credits** The purpose of this course is to introduce the student to contract design. The student will expand the aesthetic and technical skills developed in INTD 151, INTD 152, INTD 153; INTD 155 and INTD 251. Emphasis will be placed on space planning, universal design, codes and specifications. The student will use the internet for product research. Field trip is required. (Prerequisite: A grade of "C" or higher in INTD 151, INTD 152, INTD 153, INTD 155 and INTD 251) (Prerequisite or Corequisite: INTD 245)

▲ **INTD-254 Interior Design Studio II;**

**3 credits** The purpose of this course is to expose students to advanced concepts and problems in the planning of interior environments. Students will further expand their abilities to develop effective space plans, to specify appropriate interior finishes, furnishings and to create presentation materials for the purpose of conveying design concepts. Emphasis will be placed on code compliance and universal design concepts. Additional lab time required. Field trips may be required. (Prerequisites: A grade of "C" or higher in INTD 251 and INTD 253)

▲ **INTD-256 Lighting and Building Systems for Interiors; 3 credits**

The purpose of this course is to introduce the student to the technical and aesthetic aspects of lighting and its use as a visual design element in interior spaces. The student will develop an understanding of light measurement and control. Lighting problems will be explored and solved through the application of formulas and lighting calculations. The student will become familiar with lighting and electrical symbols and utilize them in the creation of reflected ceiling plans. The student will become aware of various building systems including HVAC, plumbing and sprinklers. Field trips may be required. Additional lab time is required. (Prerequisites: A grade of "C" or higher in INTD 151, INTD 152, and INTD 251)

▲ **INTD-257 Textiles & Materials for Interior Design; 3 credits**

The purpose of this course is to introduce and familiarize the student with textiles and the textile industry as it relates specifically to Interior Design. The student will gain knowledge of fiber sources, creation of yarn and various methods of fabric construction. Additionally, students

will develop an understanding of dyeing, printing, finishing processes and will be able to identify and classify textiles used by their yarns and weaves. Students will learn the "language" of textiles as used by the design industry and will understand the transformation raw fibers undergo before reaching the end user. Students are required to create and render historical and contemporary textile projects. Students will also research a current topic, such as sustainability or green design and present their research to the class. Field trips may be required. (Prerequisite: A grade of "C" or higher in INTD 153)

▲ **INTD-258 Trade Information and Business Practices; 3 credits**

The purpose of this course is to familiarize the student with the business practices of the design industry, expose the student to diverse job opportunities, and reinforce their preparedness for entry into the work force. Students will become aware of the type of business formations, documents utilized during the course of a design project, methods of determining fees and basic project management practices. Students will develop their resume, portfolio and various marketing tools. Field trips may be required. (Prerequisites: A grade of "C" or higher in INTD 251, INTD 253, INTD 254, INTD 256 and INTD 257)

▲ **INTD-299 Internship - Interior Design; 1 to 3 credits**

## Italian

● **ITAL-101 (HU) Elementary Italian**

**Communication I; 4 credits** This course is designed for students with no previous or very limited knowledge of the Italian language. Strong emphasis will be placed on acquiring conversational and comprehension skills, using practical and interesting situational materials that will stress both language and culture. Grammatical patterns and syntax will be stressed with the aim that students read and write what they have learned to say and understand. (This course is not open to native Italian speakers or students with more than two years of Italian in high school, except by instructor approval)

● **ITAL-102 (HU) Elementary Italian**

**Communication II; 4 credits** Students will build upon skills acquired in the first semester course and will be able to express themselves in a variety of more complex situations in Italian. (Prerequisite: A grade of "C" or higher in ITAL 101 or permission of instructor)

● **ITAL-203 (HU) Intermediate Italian**

**Communication I; 3 credits** Students will improve their speaking, listening, reading and writing skills, demonstrating the ability to report on various aspects of life and culture in Italy, using more complex language patterns. (Prerequisite: A grade of "C" or higher in ITAL 102 or permission of instructor)

● **ITAL-204 (HU) Intermediate Italian**

**Communication II; 3 credits** Students will demonstrate the ability to speak, read and write Italian. Also, students will discuss and evaluate Italian culture, customs and current events. They will be able to use Italian with native speakers of the language. (Prerequisite: A grade of "C" or higher in ITAL 203 or permission of instructor)

## Japanese

● **JPNS-101 (HU) Elementary Japanese**

**Communication I; 4 credits** This course is designed for students with no previous, or very limited knowledge of the Japanese language. Strong emphasis will be placed on acquiring conversational and comprehension skills, using practical and interesting situational materials that will stress both language and culture. The course is presented using both Hiragana (symbols) and Romaji (anglicized) version of Japanese. (This course is not open to native Japanese speakers or to students with more than two years of Japanese in high school, except by instructor approval)

● **JPNS-102 (HU) Elementary Japanese**

**Communication II; 4 credits** Students will build upon skills acquired in the first semester course and will be able to express themselves in a variety of more complex situations in Japanese. (Prerequisite: A grade of "C" or higher in JPNS 101)

● **JPNS-203 (HU) Intermediate Japanese**

**Communication I; 3 credits** Students will improve their speaking, listening, reading, and writing skills in Japanese, demonstrating the ability to discuss various aspects of life and culture in Japan, using more complex language patterns. Students will use the two basic Japanese alphabets and some Kanji (Chinese characters) as well as grammatical patterns. (Prerequisite: Grade of "C" or higher in JPNS 102)

● **JPNS-204 (HU) Intermediate Japanese**

**Communication II; 3 credits** Students will continue to improve their speaking, listening, reading and writing skills in Japanese, and

to discuss and evaluate Japanese culture and customs using increasingly complex language patterns. They will also demonstrate the ability to use Japanese with native speakers of the language. Students will use the two basic Japanese alphabets and some Kanji (Chinese characters) as well as grammatical patterns. (Prerequisite: Grade of "C" or higher in JPNS 203)

## Journalism

- **JOUR-101 (C) Introduction to Journalism; 3 credits** Students learn to develop and evaluate sources of information, to analyze audience needs, to develop a sense of importance, to write concisely and clearly and to background themselves quickly. The course emphasizes clarity and conciseness in writing and examines those techniques in successful writing for both fiction and non-fiction. Students also gain an understanding of what makes news, who decides what becomes news and how media decide what to publish or broadcast. (Prerequisite: ENGL 095 or passing score in English on Basic Skills Test)
- **JOUR-102 (C) Journalism II; 3 credits** Students deepen their knowledge of reference materials, develop their ability to interview and learn the standard sources of news. Students work independently outside of class as well as in the computer lab on various journalism exercises that will teach them to write clearly and concisely. (Prerequisite: JOUR 101)
- ▲ **JOUR-295 Special Project - Journalism; 1 to 6 credits**
- ▲ **JOUR-299 Journalism Internship; 1 to 6 credits** Students may practice journalistic/writing skills in a real-world situation. They may work part time as reporters or editorial assistants for daily or weekly newspapers; as assistants in public relations offices of either private firms or public institutions; in the news departments of broadcast or television stations; or on a magazine staff or for book publishing firms. (Prerequisite: JOUR 101, permission of instructor and Career Services Representative)

## Language

**LANG-075 Intensive Basic Pronunciation for Non-Native Speakers of English; 3 credits** This is an introductory course designed for non-native English speakers

who wish to improve their speech clarity. The focus is on correct identification and production of Standard American English consonant and vowel sounds in words, phrases and sentences. This is a development course and will not be counted toward degree requirements. (Prerequisite: Ability to speak some English)

### **LANG-101 American Pronunciation and Articulation for the Non-Native Speaker; 3 credits**

This course helps refine the American English of non-native speakers. It is an in-depth program that teaches students to understand and use the correct patterns of stress and intonation.

### **LANG-102 Conversation Strategies for Non-Native Speakers of English; 3 credits**

This course is designed to give practice in idiomatic American English conversation by focusing on everyday situations (i.e., meeting new people, problems and successes as a consumer, solving problems) that students will be likely to encounter as they adjust to life in the United States. A hidden dimension of this course is teaching the student the difference between the formal language learned in the classroom and the informal language used by Americans in real life. (Prerequisite: LANG 101)

- ▲ **LANG-295 Special Project – Modern Language; 1 to 6 credits** (Prerequisite: Permission of instructor)

## Marketing

- **MRKT-101 (SS) Introduction to Marketing; 3 credits** The student will master the fundamentals of marketing and marketing theory. The students will study theories relevant to marketing and the business environment, marketing and the social environment, research, product strategies and development, distribution, promotion and pricing. (Prerequisite: READ 092, READ 095 or passing score in reading on Basic Skills Test)
- ▲ **MRKT-105 Advertising; 3 credits** The course will encompass those areas relevant to modern advertising. Topics covered will include media selection, social and economic impacts of advertising, layout, advertising and the marketing system, copywriting and advertising campaign strategies. (Prerequisite: READ 092, READ 095 or passing score in reading on Basic Skills Test)
- ▲ **MRKT-111 Fundamentals of Retailing; 3 credits** This course will involve the student in the study of basic retail operations and store management, including consumer behavior, location and site analysis, merchandising practices and policies, retail advertising, layout and display as well as other basic retail management responsibilities. (Prerequisites: READ 095 and MATH 015 or passing scores in reading and computation on Basic Skills Test)
- ▲ **MRKT-145 Salesmanship; 3 credits** The student will practice the basic principles and theories of accepted selling practices. Upon completion of this course, the student will be able to develop selling strategies through case studies and field experiences. (Prerequisite: READ 092, READ 095 or passing score in reading on Basic Skills Test)
- ▲ **MRKT-202 Marketing in Contemporary Societies; 3 credits** The student will examine the societal implications of modern marketing practice by reading and evaluating a series of essays by prominent authors. The student will apply marketing principles and techniques to the area of consumer behavior and evaluate their relevance to overall marketing patterns. **NOTE: This term is offered in the Spring term only.** (Prerequisite: A grade of "C" or higher in MRKT 101)
- ▲ **MRKT-266 (t) Internet Marketing; 3 credits** Students will learn how the Internet has become an indispensable tool for business and the role that Web sites play in marketing products and services. Students will learn the advantages and disadvantages of Internet marketing, and how to build a site that reflects good marketing practice. The course also covers Web hosting options, costs, site content, and site maintenance. Basic computer knowledge is essential for this course. **NOTE:** Although the course does cover basic site development and good marketing practice, it does not cover detailed HTML programming. **NOTE: This course is offered in the Spring term only.** (Prerequisite or Corequisite: MRKT 101 or MRKT 105 or MRKT 111, minimum grade of "C" or permission of instructor.)
- ▲ **MRKT-295 Special Project-Marketing; 1 to 3 credits** Students may choose to specialize or investigate some area in greater depth by selecting 1-3 credits in this individual learning course for the major. (Prerequisite: 6 credits in the Marketing Program or permission of the instructor)

**▲ MRKT-299 Marketing Internship; 3 credits**

Students will work in a job related to their program. Also, they will participate in programs on campus and complete an internship workbook based on the work experience gained. (Prerequisite: 30 credits to include 15 credits of career studies, permission of instructor and Career Services Representative; Corequisite: HUDV 115)

## Mathematics

**MATH-011 Prealgebra, Part I; 4 credits**

This course covers the first half of the content of MATH 015 (the second half is covered by MATH 012). The MATH 011-012 sequence prepares students for elementary algebra. In MATH 011, operations with whole numbers, fractions, and integers will be reinforced through application problems. Other topics include organizing data in tables and graphs, introduction to probability, formulas, practical geometry, evaluating algebraic expressions, expressing rules using variables (input/output tables), absolute value, and solving simple algebraic equations. This is a developmental course in the basic skills and will not be counted towards degree requirements. NOTE: Students taking MATH 011 may not enroll simultaneously in any other math course. (Prerequisite: None; placement is based on scores on the College placement test.)

**MATH-012 Prealgebra, Part II; 4 credits**

This course covers the second half of the content of MATH 015 (the first half is covered by MATH 011). The MATH 011-012 sequence prepares students for elementary algebra. MATH 012 begins with a brief review of MATH 011 and then covers decimals, measurement and additional topics in geometry, solving simple equations, introduction to statistics, percent, ratio, and proportion. This is a developmental course in the basic skills and will not be counted towards degree requirements. NOTE: Students taking MATH 012 may not enroll simultaneously in any other math course. (Prerequisite: MATH 011)

**MATH-015 Prealgebra; 4 credits** This course prepares students for elementary algebra. Operations with whole numbers, fractions, decimals, and integers are reinforced through application problems. Other topics include organizing data in tables and graphs, introduction to probability and statistics, formulas, ratio and proportion, percent, practical geometry, evaluating algebraic expressions, expressing rules using

variables (input/output tables), absolute value, and solving simple algebraic equations. Some class time may be spent in the Math Lab. This is a developmental course in the basic skills and will not be counted towards degree requirements. NOTE: Students taking MATH 015 may not enroll simultaneously in any other math course. (Prerequisites: None; placement is based on scores on the College placement test.)

**MATH-021 Introductory Algebra; 4 credits**

This course is an introduction to the concepts and methods of algebra. Numerical, graphical, and symbolic tools and techniques are used to apply algebra to real-world situations. Topics include creating and translating algebraic expressions, solving linear equations, inequalities and formulas, graphing and writing linear functions, and solving linear systems. Applications are included throughout the course. This is a developmental course in the basic skills and will not be counted towards degree requirements. NOTE: Students taking MATH 021 may not enroll simultaneously in any other math course. (Prerequisites: MATH 015 or MATH 012 or satisfactory completion of the College's basic skills requirement in computation.)

**MATH-022 Algebra Skills; 4 credits**

This course provides students who have completed MATH 021 with the necessary skills and concepts to continue the study of algebra in MATH 151 or MATH 161. This course begins with a review of MATH 021 and continues with polynomial and exponential expressions, factoring, quadratic equations, rational and radical expressions and equations. Problem solving is stressed throughout the course. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic. A graphing calculator is required – the specific model is determined by the department. This is a developmental course in the basic skills and will not be counted towards degree requirements. (Prerequisite: MATH 021)

**MATH-025 Elementary Algebra; 4 credits**

This course is a review of elementary algebra and requires previous experience in algebra. The course is intended for students who need to take MATH 151 or MATH 161. The topics include linear equations and inequalities, functions and function notations, graphs and equations of linear functions, systems of linear equations, polynomial and exponential expressions, factoring, quadratic equations, rational and radical expressions

and equations. Problem solving is stressed throughout the course. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic. A graphing calculator is required – the specific model is determined by the department. This is a developmental course in the basic skills and will not be counted towards degree requirements. NOTE: Students taking MATH 025 may not enroll simultaneously in any other math course. (Prerequisite: MATH 015 or MATH 012, or satisfactory completion of the College's basic skills requirement in computation)

**MATH-035 Geometry; 2 credits** This course is for students who have not had a recent course in plane geometry and who plan to take trigonometry and/or calculus, or need a course in geometry to meet the entrance requirements for another college. Topics include the fundamental definitions and concepts of plane geometry, methods of proof, and some topics from solid geometry. Problems will be approached from geometric and algebraic perspectives. Throughout the course, emphasis will be placed on hands-on activities and problem solving. This is a developmental course in the basic skills and will not be counted towards degree requirements. NOTE: MATH 035 is offered only in the Winterim term. (Prerequisite: MATH 022 or MATH 025, or satisfactory completion of the College's basic skills requirement in algebra).

- **MATH-131 (M) Statistics; 4 credits** This course begins with descriptive statistics, including graphical representations of data and measures of central tendency, position and variation. Basic probability concepts lead to the study of the binomial and normal probability distributions. The course continues with the Central Limit Theorem and its use in the development of estimation through confidence intervals and hypothesis testing. The course concludes with Chi Square tests and linear correlation and regression. Computer software will be used in class to gain a greater understanding of underlying concepts. (Prerequisite: MATH 021 or MATH 025 or satisfactory completion of the College's basic skills requirement in algebra)
- **MATH-136 (M) Mathematics for the Liberal Arts; 3 credits** This is a survey course with topics chosen from problem solving, sets, logic, numeration systems, geometry, probability and statistics, consumer mathematics, graph theory, and

voting theory. (Prerequisite: MATH 021 or MATH 025, or satisfactory completion of the college's basic skills requirement in algebra)

- **MATH-137 (M) Finite Mathematics; 3 credits** This course contains topics chosen from linear functions, matrices, linear programming, sets, probability theory, game theory and Markov chains. Mathematical models will be used to solve problems in business and the social and behavioral sciences. Computer software will be used in class to gain a greater understanding of underlying concepts through graphs and specialized programs. (Prerequisite: MATH 021 or MATH 025, or satisfactory completion of the College's basic skills requirement in algebra)
- **MATH-145 (M) Algebraic Modeling; 4 credits** This course is an intermediate algebra course in which examples are drawn from real life and skills are learned in the context of these applications. Topics include functions and their properties and associated algebraic skills and modeling using linear, exponential, logarithmic, quadratic, rational and radical functions. Problems are approached from a variety of perspectives, including graphical, numerical, verbal and algebraic. A graphing calculator is required – the specific model is determined by the department. The course may be used as a prerequisite for MATH 146 and MATH 156 but NOT MATH 152 or MATH 153. (Prerequisites: MATH 021 or MATH 022 or MATH 025 or satisfactory completion of the College's basic skills requirement in algebra)
- **MATH-146 (M) Advanced Topics in Mathematics for the Liberal Arts; 4 credits** This is a survey course with topics chosen from the mathematics of voting, fair division, apportionment, Euler circuits, the Traveling Salesman Problem, networks, scheduling, symmetry, and fractal geometry. **NOTE: MATH 146 is offered only in the Spring and Summer II terms.** (Prerequisite: A grade of "C" or higher in MATH 145 or MATH 151)
- **MATH-151 (M) Intermediate Algebra; 4 credits** This course prepares students for courses that require algebraic skills beyond those taught in Elementary Algebra. Topics include equations, inequalities, linear systems in two and three variables, complex numbers and applications of functions: linear, exponential, logarithmic, quadratic, polynomial, rational and radical. In addition, the course provides a basic introduction to right triangle trigonometry, vectors, and the Laws of Sines

and Cosines. Problems are approached from a variety of perspectives, including graphical, numerical, verbal and algebraic. A graphing calculator is required – the specific model is determined by the department.

(Prerequisite: MATH 022 or MATH 025 or satisfactory completion of the College's basic skills requirement in algebra)

- **MATH-152 (M) College Algebra & Trigonometry; 4 credits** This course, followed by MATH 153, prepares students for the study of calculus. Topics include functions and function notation, rate of change and linear functions, transformations of functions, a review of right triangle trigonometry, graphing trigonometric functions, applications leading to sinusoidal graphs, trigonometric functions through the unit circle, some basic identities, solving equations, identities as tools for rewriting trigonometric expressions, the double and half-angle identities, quadratic functions, power functions, and polynomial functions. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic. A graphing calculator is required – the specific model is determined by the department. (Prerequisites: A grade of "C" or higher in MATH 151 or equivalent)
- **MATH-153 (M) Pre-Calculus Mathematics; 4 credits** This course, preceded by MATH 152, prepares students for the study of calculus. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic. The topics require students to exhibit critical thinking skills as they analyze a variety of problems, create functions from a problem situation, and solve optimization problems using those functions. Students use their calculators and their understanding of the behavior of functions to perform regression analysis on data sets, including linear, quadratic, exponential, logistic, and sinusoidal models. Types of functions studied include rational, inverse trigonometric, exponential, and logarithmic. Parametric equations are introduced and used to define circles, ellipses, and hyperbolas. A graphing calculator is required; the specific model is determined by the department. (Prerequisite: A grade of "C" or higher in MATH 152 or equivalent)
- **MATH-156 (M) Mathematics for Management and the Social Sciences; 3 credits** This course prepares students for a college level business calculus course. Functions and their graphs are studied, including polynomial, rational, exponential, and logarithmic functions. Topics also

include systems of linear equations, matrix algebra, linear programming (graphical solution and simplex method) and the mathematics of finance. All topics include applications in the management, life and social sciences. Computer software will be used in class to gain a greater understanding of underlying concepts. (Prerequisite: A grade of "C" or higher in MATH 145 or MATH 151)

- **MATH-161 (M) Technical Mathematics I; 4 credits** This is the first of three courses (followed by MATH 162 and MATH 263) intended specifically for students of the various technology programs offered at Brookdale Community College. Topics to be studied in MATH 161 include significant digits, linear and quadratic functions, laws of exponents and roots, linear systems in two and three variables, determinants, triangle trigonometry (including the Laws of Sines and Cosines), the trigonometric functions, vectors, and the complex number system. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic. A graphing calculator is required – the specific model is determined by the department. (Prerequisite: MATH 022 or MATH 025 or satisfactory completion of the College's basic skills requirements in algebra)
- **MATH-162 (M) Technical Mathematics II; 4 credits** This is the second of three courses (after MATH 161 and before MATH 263) intended specifically for students of the various technology programs offered at Brookdale Community College. Topics to be studied in MATH 162 include a continued refinement of algebra skills, exponential, logarithmic, and inverse trigonometric functions, trigonometric identities, variation, conic sections, polar coordinates, and topics in statistics. Problems are approached from a variety of perspectives, including graphical, numerical, verbal and algebraic. A graphing calculator is required – the specific model is determined by the department. **NOTE: MATH 162 is offered only in the Fall.** (Prerequisites: A grade of "C" or higher in MATH 161 or MATH 152)
- **MATH-171 (M) Calculus I; 4 credits** This is a first semester scientific calculus course and the topics include limits, continuity, derivatives and their applications, and integrals, including the Fundamental Theorems. Algebraic, trigonometric, inverse trigonometric, exponential and logarithmic functions will be studied. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and

algebraic. Computer software will be used extensively in class to gain a greater understanding of concepts as well as to consider non-routine problems. (Prerequisites: A grade of "C" or higher in MATH 153 or equivalent)

● **MATH-172 (M) Calculus II; 4 credits**

This course is a continuation of MATH 171, Calculus I. Topics include applications of the definite integral, such as area, volume, arc length, and average value, techniques of integration with emphasis on substitution and integration by parts, approximate integration and error formulas, differential equations and applications to growth and decay, infinite sequences and series, power series, and Taylor series. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic. Computer software will be used extensively in class to gain a greater understanding of concepts as well as to consider non-routine problems. (Prerequisite: A grade of "C" or higher in MATH 171)

■ **MATH-176 (M) Calculus With Business Applications; 4 credits**

This course covers differential and integral calculus with applications in business, economics, and the life sciences. Topics include functions and their graphs, constructing mathematical models, the derivative and its applications, the integral and its applications and exponential and logarithmic functions. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic through the use of computer software in class. (Prerequisite: A grade of "C" or higher in MATH 156)

▲ **MATH-226 Discrete Mathematics; 4 credits**

This course is intended for students of mathematics or computer science. The course examines the theoretical and applied mathematical foundations for the discipline of computer science. Topics include sets, logic, methods of proof, functions, number theory, counting techniques, discrete probability, graphs and trees, relations and Boolean functions. Mathematical reasoning and proofs will be stressed. Applications are drawn from the field of computer science. A prior programming course, while recommended, is not necessary. **NOTE: MATH 226 is offered only in the Summer II term.** (Prerequisite: A grade of "C" or higher in MATH 172)

■ **MATH-263 (M) Applied Technical Calculus; 4 credits**

This is the third of three courses (after MATH 161 and MATH

162) intended specifically for students of the various technology programs offered at Brookdale Community College. This course covers differential and integral calculus with technology applications. Topics include functions, limits, the derivative and its applications, the integral and its applications, calculus of transcendental functions, and integration techniques, including tables of integrals. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic through the use of computer software and graphing calculators in class. A graphing calculator is required – the specific model is determined by the department. **NOTE: MATH 263 is offered only in the Spring term of odd-numbered years.** (Prerequisites: A grade of "C" or higher in MATH 162 or MATH 153)

■ **MATH-273 (M) Calculus III; 4 credits**

This course, a continuation of MATH 172, Calculus II, completes the study of elementary calculus. Topics include polar equations, vectors and vector-valued functions, surfaces in space and functions of several variables, partial derivatives and multiple integrals, and topics from vector analysis. Applications will be considered throughout the course. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic. Computer software will be used extensively in class to gain a greater understanding of concepts as well as to consider non-routine problems. (Prerequisite: A grade of "C" or higher in MATH 172)

■ **MATH-274 (M) Elementary Differential Equations; 4 credits**

This is an introductory course in concepts and applications of differential equations. Topics include classical methods of solving first- and higher-order differential equations, mathematical models for phenomena such as growth and decay, chemical reactions, motion of a body, spring-mass systems and electric circuits, qualitative and numerical aspects of differential equations, and systems of differential equations. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic. Computer software will be used extensively in class to gain a greater understanding of concepts as well as to consider non-routine problems. **NOTE: MATH 274 is offered in the Spring and Summer II terms.** (Prerequisite: A grade of "C" or higher in MATH 273)

▲ **MATH-285 Linear Algebra; 3 credits**

This is an introductory course in concepts and applications of linear algebra. Topics

include solutions of systems of linear equation using matrices and determinants, vector spaces, linear transformation, eigenvalues and eigenvectors, and the problem of diagonalizing a square matrix. Applications, including Markov chains, the least squares fit problem, and polynomial interpolation are included throughout the course. Problems are approached from a variety of perspectives, including graphical, numerical, verbal, and algebraic through the use of computer software in class. **NOTE: MATH 285 is offered only in the Summer II term.** (Prerequisite: A grade of "C" or higher in MATH 172)

▲ **MATH-295 Special Project –**

**Mathematics; 1 to 3 credits** MATH 295 is a course designed for students who wish to study an advanced topic in mathematics not included in one of our currently offered courses. Topics may be in a variety of areas, including fractal geometry, statistics and probability theory, abstract algebra and others. Before registering for the course the student must obtain a faculty advisor who will develop and submit a detailed program of study for the student. (Prerequisite: A grade of "C" or higher in MATH 172)

## Music

■ **MUSI-101 (HU) Fundamentals of Music; 3 credits**

This course is designed for beginner music students or those wishing to review music notation. The student will learn to read simple music, identify the fundamentals of musical acoustics and define the fundamental rules of music theory. Attendance at an on-campus concert will be required.

■ **MUSI-102 (HU) Comprehensive Musicianship I; 3 credits**

This course is designed for music students who already possess basic reading skills in music and can attempt the study of minor, modal and exotic scales, as well as compose melodies in each. The student will learn to play and notate all intervals, four basic triads and their inversions. Attendance at an on-campus concert will be required. (Prerequisite: A grade of "C" or higher in MUSI 101)

■ **MUSI-103 (HU) Ear Training; 3 credits**

The student will learn to identify and notate intervals, rhythms, chord and melodies. **NOTE: This course is offered in the Spring term only.** (Prerequisite: A grade of "C" or higher in MUSI 102, or equivalent skills on pretest or audition)

● **MUSI-115 (HU) Music Appreciation; 3 credits** This course is designed for music listeners with experiences that will include classroom-teacher guided sessions, instructional cassettes, sound filmstrips, TV and radio broadcasts as well as attendance at operas, operettas, concerts and recitals. The student will learn to understand and enjoy more fully the classics of music literature.

● **MUSI-116 (HU) History of Jazz; 3 credits** This course is a survey course of jazz music and is geared toward non-musicians. The major style periods of jazz will be covered, beginning with ragtime, and concluding with contemporary developments. This will be accomplished through required listenings, class lecture and class listenings.

▲ **MUSI-121 Song Writing; 3 credits** Song Writing is a course in which students will write songs. This will be accomplished by examining stylistic characteristics and then writing songs in different genres. Broadway, art songs, folk songs, blues, all periods of popular music and instrumental songs will all be considered. Elements such as melody, harmony, rhythm, lyric content and form will be examined. Concert attendance will be a requirement. **NOTE: This course is offered in the Spring term only.** (Prerequisite: Basic fluency in music fundamentals: reading treble and bass clefs, basic rhythmic notation and concepts, major scales and key signatures, intervals, and triads, major, minor, augmented, and diminished, or a grade of "C" or higher in MUSI-101.)

▲ **MUSI-122 Commercial Composition II; 3 credits** The student will continue the techniques and skills learned in MUSI 121. Students will be able to compose for large ensembles as well as film and radio projects. (Prerequisite: A grade of "C" or higher in MUSI 121)

▲ **MUSI-123 Music Technology I; 3 credits** The student will experience a hands-on use of digital synthesizers in a compositional environment. The student will be able to define basic electronic music principles. Computer sequencing techniques will be stressed. Students will operate and understand various MIDI-equipped electronic synthesizers, and will also be exposed to electronic music literature. Students must be able to read music and have a general music background to take this course. Attendance at an on-campus concert will be required. **NOTE: This course is offered in the Fall term only.** (Prerequisite: MUSI 101 or permission of the instructor)

■ **MUSI-201 (HU) Comprehensive Musicianship II; 3 credits** This course is designed for the music student with a strong working knowledge of music theory. Students will develop a technique of harmonization with triads, and some common seventh chords in root position and inversion. Figured bass will be discussed. Students will be able to construct four-part chorale harmonization's. Popular applications, and basic concepts in harmonic analysis will also be discussed. Attendance at an on-campus concert will be required. (Prerequisite: A grade of "C" or higher in MUSI 102)

▲ **MUSI-221 Music Technology II; 3 credits** This course is an extension of Music Technology I, whereby the student will become familiar with the operation of the digital electronic synthesizer and will be able to explain its uses thoroughly. Advanced computer sequencing techniques and MIDI applications will be discussed in a compositional environment. Hard disk recording techniques will also be introduced. Attendance at an on-campus concert will be required. **NOTE: This course is offered in the Spring term only.** (Prerequisite: A grade of "C" or higher in MUSI 123)

▲ **MUSI-295 Special Project – Music; 1 to 6 credits** Students may choose to specialize or investigate some area in greater depth by selecting 1-6 credits in this individual learning course for the major.

## Music Performance

■ **MUPF-101 (HU) Group Piano I; 3 credits** Students will learn to read music at the piano. They will perform elementary five-finger studies and two-hand piano pieces, transposing them to all major keys. They will play simple chord structures.

■ **MUPF-102 (HU) Group Piano II; 3 credits** Students will be able to play and transpose easy pieces in minor keys. They will play all the major and minor scales in tetrachords. They will identify parallel and relative majors and minors. They will play elementary chord progressions and pieces in all the major and minor keys. (Prerequisite: A grade of "C" or higher in MUPF 101 or instructor approval)

■ **MUPF-103 (HU) Group Piano III; 3 credits** Students will analyze, polish and perform pieces of early intermediate level at the piano. They will play major and minor scales and arpeggios with the appropriate traditional fingerings. They will identify and play the four forms of the triad and their inversions. They will improve their sight reading and improvising skills. (Prerequisite: A grade of "C" or higher in MUPF 102 or instructor approval)

■ **MUPF-111 (HU) Voice I; 3 credits** Students will study the art and science of singing in Voice I. The class will be divided into two sections: in the first section, students will learn the correct way to produce a healthy, safe vocal sound by means of *bel canto* techniques intended to strengthen breathing support, projection, range and flexibility. In the second part of the class, the students will work on assigned pieces of music and present their work to the class. Interpretation, style, phrasing, etc. will be studied as a part of the performances.

■ **MUPF-112 (HU) Voice II; 3 credits** Building upon the skills learned in MUPF 111, this course is designed to continue to build a solid vocal technique, with additional work on performance proficiency, in other words, students will continue to study both the art and the science of singing. The class will be divided into the same two sections: in the first section, students will learn the correct way to produce a healthy, safe, vocal sound by means of *bel canto* techniques intended to discover, develop and strengthen breath, support, projection, range and flexibility. In the second part of the class, students will work on assigned pieces of music and present their work to the class. Interpretation, style, phrasing, etc., will be studied as a part of the performances. Prerequisite: A grade of "C" or higher in MUPF 111)

▲ **MUPF-121 Jazz Studio Ensemble I; 3 credits** In this instrumental ensemble, the students will be exposed to performing in various jazz styles. Students will be instructed in soloing techniques and they will be encouraged to individually solo within the context of the ensemble. Attendance at an on-campus concert will be required.

▲ **MUPF-122 Jazz Studio Ensemble II; 3 credits** Jazz Studio Ensemble II is a hands-on musical performance course with emphasis placed on the repertoire of the Big Band. Ensemble performance skills such

as section playing, group intonation and dynamics, and rhythmic interpretation of Big Band performance clichés will be stressed. Improvisation techniques, within the context of the entire ensemble, will also be covered. The instrumentation of the group will be that of a traditional swing band and repertoire of all style periods and major arrangers will be covered. Personal instrument required. (Prerequisite: MUSI 101, basic fluency of music fundamentals, or the approval of the instructor. Students without previous ensemble experience should consider or may be asked to enroll in MUPF 121, Jazz Ensemble I, as a prerequisite in order to gain the necessary level of performance experience required for this course).

▲ **MUPF-125 Basics of Jazz Improvisation; 3 credits** This course is designed to introduce the student to the basics of jazz improvisation (namely, the rhythmic, harmonic, and theoretical functions of the musical process of improvising). These goals will be accomplished through required listening, a discussion of music theory as it applies to jazz performance, and performance based on the student's background and experience. A personal instrument is required with the exception of pianists and vocalists. Attendance at two jazz concerts will be required. **NOTE: This course is offered in the Spring term only.** (Prerequisite: MUSI 102 or approval of instructor, and fluency on an instrument.)

■ **MUPF-131 (HU) Group Guitar I; 3 credits** This course is designed for students with little or no guitar experience and will focus on the basic skills needed to play the guitar. Specific areas of discussion will include reading music, fingerboard basics, strumming and picking technique, and an introduction to chords and scales. Skills learned in this course will allow the student to perform music in a variety of styles. Attendance at one Brookdale concert is required.

■ **MUPF-132 (HU) Group Guitar II; 3 credits** This course is designed as a continuation of MUPF 131, with added emphasis on individual study. Specific areas of discussion will include understanding and reading rhythms, learning to improvise using major, minor, and pentatonic scales and modes, as well as understanding harmony in a variety of musical styles. Students will do final projects arranging composing or performing songs, including those found in today's popular music. Attendance at one Brookdale concert is required. (Prerequisite: A grade of

"C" or higher in MUPF 131 or at least one year of guitar experience and instructor approval)

▲ **MUPF-138 Jazz Guitar; 3 credits**

This course will focus on the basic skills needed to play jazz music on the guitar. Specific areas of discussion will include understanding and reading rhythms, jazz chord forms, and learning to improvise using major scales, modes, guide tones, and chord melody playing. Studies continue with the melodic and harmonic analysis of jazz guitar solos by historically renowned jazz guitarists. (Prerequisite: MUPF 131 or MUPF 132 or at least one year of guitar experience.)

■ **MUPF-201 (HU) Group Piano IV; 3 credits**

Students will analyze, polish, and perform pieces of early intermediate level at the piano. They will play major and minor scales and arpeggios with the appropriate traditional fingerings. They will identify and play the four forms of the triad and their inversions. They will improve their sight reading and improvising skills. (Prerequisite: A grade of "C" or higher in MUPF 103 or instructor approval)

■ **MUPF-202 (HU) Group Piano V; 3 credits**

Students will continue to advance, furthering technical and musical skills begun in the first four terms of group piano and pursuing their own interests. Musical works of the impressionistic style will be emphasized. (Prerequisite: A grade of "C" or higher in MUPF 201 or instructor approval)

■ **MUPF-203 (HU) Group Piano VI; 3 credits**

Students will continue to advance, furthering technical and musical skills begun in the first five terms of group piano and pursuing their own interests. Musical works of the 20th century will be emphasized. Attendance at one concert with piano music is required. (Prerequisite: A grade of "C" or higher in MUPF 202 or instructor approval)

■ **MUPF-211 (HU) Voice III; 3 credits**

Students will build upon the skills established in MUPF 111 and MUPF 112. In the first section of the course, students will develop advanced vocal techniques to further refine healthy, safe vocal sounds by means of the most advanced and challenging *bel canto* techniques intended to further strengthen breathing, support, projection, range, and flexibility. In the second part of the class, students will be assigned advanced standard repertory pieces of music and present their work to the class. Interpretation, style, phrasing, analysis of

lyrics, and compositional techniques will be studied. Performances will be taped and viewed in the class for constructive criticism. (Prerequisite: A grade of "C" or higher in MUPF 112)

■ **MUPF-212 (HU) Voice IV; 3 credits**

Students will build upon the skills established in MUPF 111, MUPF 112 and mUPF 211. The class will continue to be divided into two sections. In the first section, students will develop advanced vocal techniques to further refine healthy, safe vocal sounds by means of the most advanced and challenging *bel canto* techniques intended to further strengthen breathing support, projection, range and flexibility. In the second part of the class, students will be assigned advanced standard repertory pieces of music and present their work to the class. Interpretation, style, phrasing, analysis of lyrics and compositional techniques will be studied. Performances will be taped and viewed in the class for constructive criticism. Additional requirements will include study of Latin diction, performance requirements outside of Brookdale, and work on the presentation of a cabaret show. (Prerequisite: A grade of "C" or higher in MUPF 211)

## Networking

▲ **NETW-105 Fundamentals of Telecomm; 3 credits**

The purpose of this course is to provide students with a working knowledge of voice telecommunications (telephony). Students will learn the history, current use and future directions of telephony. Through lectures, class work, case studies, and hands-on projects students will gain an understanding of voice networks and network components, voice and data telecommunication, circuits and LANS, protocols, "standards," transmission and media. Other topics include the history and development of the industry and regulation and deregulation, and finally, architectures, network connectivity principles and concepts of network design and management. Upon successful completion of this course, students will earn three credits. (Prerequisites: MATH 012 or MATH 015 or passing score in computation on Basic Skills Test and ENGL 095 or passing score in English on Basic Skills Test.)

▲ **NETW 106 Introduction to Networking TCP/IP; 3 credits** The objective of this course is to provide students with a practical

understanding of networking and the skills required to set up and use TCP/IP networks. Instruction will include demonstration and hands-on experience of networking and TCP/IP concepts. Additionally, this course provides students with an overview of the facilities and services provided by the TCP/IP protocol suite and others. It is useful for students who wish to understand networking concepts with TCP/IP or make decisions about implementing a TCP/IP network. The course concentrates on the Windows Operating System with TCP/IP implementation.

- ▲ **NETW-107(t) Introduction to Security; 3 credits** This course provides a fundamental understanding of network security principles and implementation through lecture, hands-on activities, and case studies. Topics covered include: authentication, types of attacks, malicious code, email threats and countermeasures, Web applications, remote access, and file and print services, intrusion detection systems, firewalls, and physical security concepts, security policies, disaster recovery, and computer forensics. Security topologies are discussed as well as technologies used and principles involved in creating secure computer networking environments such as providing secure communications channels, secure internetworking devices, and network medium and the daily tasks involved with managing and troubleshooting these technologies. Hands-on and case project assignments will reinforce each of the concepts.
- ▲ **NETW-110 Introduction to UNIX Network Administration; 3 credits** This course will provide the student with a comprehensive understanding of the administrative aspects of the UNIX operating system. At the conclusion of this course, the student will have the skills required to administer a UNIX system including user management, file management, backup procedures, and the reconfiguration and handling peripheral devices. The laboratory component of the course will require the student to install and configure an Intel computer with UNIX. This course consists of three hours of lecture and additional independent lab time as necessary per week. (Prerequisite: Familiarity with a computer operating system would be very helpful.)
- ▲ **NETW-111 UNIX Network Administration II; 4 credits** This course will provide the student with a comprehensive understanding of the administrative aspects of the UNIX operating system. At the end of the course the student will have the skills required to administer a UNIX server. It focuses on an

introduction to TCP/IP networking under UNIX, as well as on network monitoring and debugging. Students will learn the basic principles of TCP/IP networking, configuring and using the Domain Name Service, send-mail, the Network Information System, and the Network File System, installing and configuring a Web and Internet Server, as well as the basics of network security. This course consists of four hours of lecture and additional lab time as necessary per week. (Prerequisite: NETW 110).

- ▲ **NETW-115 E-Commerce System Design; 3 credits** The objective of the course is to provide an understanding of the technologies and design concepts relevant to electronic commerce. The emphasis is on E-Commerce applications, network infrastructure, cyber-crime, privacy, security and performance requirements. The course also covers E-Commerce transaction models such as the electronic exchange of technical data, electronic cash systems and user security. The student will understand systems design and operational considerations for an E-Commerce system. This course is useful for students who are majoring in computer science, engineering or networking. It will provide a foundation for other hardware, software or networking courses that deal with E-Commerce applications, security or network infrastructure.
- ▲ **NETW-125 (t) Introduction to Wireless; 3 credits** Through lecture, hands-on activities, and case studies, this course introduces wireless networking over a range of applications, from cell phones to wireless local area networks to broadband wide area network links to satellite. Students will be able to describe the advantages and disadvantages of wireless communication in general, and understand the difference between radio and infrared. The course will cover WLANs, and in particular 802.11b, 802.11a, and 802.11g -configuration and security problems. It will present cell phone technology, including 2, 2.5, and 3 G and examine WAP and SMS. Finally, it will examine fixed broadband wireless and satellite communications. (Prerequisites: ENGL 095 or passing score on Basic Skills Test)
- ▲ **NETW-151 (t) Router Internetworking/CCNA; 8 credits** This is the first of a two semester sequence designed to provide students with classroom and laboratory experience in current and emerging networking technology that will empower them to enter employment and/or further education and training in the computer networking

field. A task analysis of current industry standards and occupational analysis was used to develop the content standards. Instruction includes, but is not limited to, safety, networking, network terminology and protocols, network standards, LANs, WANs, OSI models, cabling, cabling tools, routers, router programming, star topology, IP addressing and network standards. The student will study and design networks using Ethernet, Token Ring, Fiber Distributed Data Interface, TCP/IP Addressing Protocol and dynamic routing. Particular emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication and social studies concepts to solve networking problems. In addition, instruction and training are provided in the proper care, maintenance and use of networking software, tools and equipment and all local, state and federal safety, building and environmental codes and regulations.

- ▲ **NETW-152 (t) Virtual LANs and WANs/CCNA; 8 credits** This is the second of a two semester sequence designed to provide students with classroom and laboratory experience in current and emerging networking technology that will empower them to enter employment and/or further education and training in the computer networking field. Instruction introduces and extends the student's knowledge and practical experience with routers, switches, Local Area Networks (LANs) and Virtual Local Area Networks (VLANs) design, configuration and maintenance. In addition, the student will learn and have practical experience with Wide Area Networks (WANs), Integrated Services Data Networks (ISDN), Point-to-Point Protocols (PPP) and Frame Relay design, configuration and maintenance. Students develop practical experience in skills related to configuring LANs, WANs, Novell networks, Internetwork Packet Exchange (IPX) routing and Interior Gateway Routing Protocol(IGRP), configuring WANs, ISDN, PPP and Frame Relay protocols and network troubleshooting. (Prerequisite: A grade of "C" or higher in NETW 151, or CCNA Semester 1 and 2 at another CNAP institution) This course is not open to students who have already taken ELEC 152.)
- ▲ **NETW-190 MCSE - Installing, Configuring and Administering Microsoft Windows XP Professional; 3 credits** This is an introductory course designed to provide an overview of networking concepts and how they are implemented in Windows networks. Students learn to install and configure

Microsoft Windows XP Professional on stand-alone and client computers that are part of a workgroup or domain. Students will learn how to implement, manage and troubleshoot hardware devices and drivers; monitor and optimize system performance and reliability; configure and troubleshoot the desktop environment; implement, manage and troubleshoot network protocols and services; and implement, monitor and troubleshoot basic security. At the conclusion of this course, the student will earn three credits, and be ready to take the Installing, Configuring and Administering Windows XP Professional MCSE exam.

- ▲ **NETW-191 MCSE – Managing and Maintaining a Microsoft Windows Server 2003 Environment; 3 credits** In this course, the student will learn to install and configure Microsoft Windows 2003 Server. Students will learn how to implement, manage and troubleshoot access to resources; monitor and optimize system performance, reliability and availability; configure and troubleshoot system storage; implement, manage and troubleshoot network connections, protocols and services; and implement, monitor and troubleshoot network security. At the conclusion of this course, the student will earn three credits, and be ready to take the Installing, Configuring, and Administering Microsoft Windows 2003 Server MCSE exam. (Prerequisite: NETW 190)
- ▲ **NETW-192 MCSE – Implementing, Managing, and Maintaining a Microsoft Windows Server 2003 Network Infrastructure; 3 credits** In this course, the student will learn to implement and administer a Microsoft Windows 2003 network infrastructure. The student will learn to install, configure, manage, monitor and troubleshoot DNS, DHCP, network protocols, WINS, IP routing and certificate services; configure, manage, monitor and troubleshoot remote access; and install, configure, and troubleshoot network address translation. At the conclusion of this course, the student will earn three credits, and be ready to take the Implementing and Administering a Microsoft Windows 2003 Network Infrastructure MCSE exam. (Prerequisite: NETW 191)
- ▲ **NETW-193 MCSE– Planning and Maintaining a Microsoft Windows Server 2003 Network Server; 3 credits** In this course, the student will learn to implement and administer a Microsoft Windows 2003 Directory Services Infrastructure. The student will learn to install, configure and troubleshoot

Active Directory; install, configure, manage, monitor and troubleshoot DNS for Active Directory; install, configure, manage, monitor, optimizing, and troubleshoot change and configuration management; manage, monitor, and optimize the components of Active Directory; and configure, manage, monitor, and troubleshoot active directory security solutions. At the conclusion of this course, the student will earn three credits, and be ready to take the Implementing and Administering a Microsoft Windows 2003 Directory Services Infrastructure MCSE exam. (Prerequisite: NETW 192)

- ▲ **NETW-194 MCSE – Planning, Implementing, and Maintaining a Microsoft Windows Server 2003 Active Directory Infrastructure; 3 credits** In this course, the student will learn to design a Microsoft Windows 2003 directory services infrastructure. The student will analyze business and technical requirements, and design a directory service architecture and service location. At the conclusion of this course, the student will earn three credits, and be ready to take the Implementing and Administering a Microsoft Windows 2003 Directory Services Infrastructure MCSE exam. (Prerequisite: NETW 193)
- ▲ **NETW-195 MCSE – Designing Security for a Microsoft Windows Server 2003 Network; 3 credits** In this course, the student will learn to design security for a Microsoft Windows 2003 network. The student will analyze business and technical requirements, design a basic security solution, a security solution for access between networks, and security for communication channels. At the conclusion of this course, the student will earn three credits, and be ready to take the Designing Security for a Microsoft Windows 2003 Network MCSE exam. (Prerequisite: NETW 194)
- ▲ **NETW-196 MCSE – Designing a Microsoft Windows Server 2003 Active Directory and Network Infrastructure; 3 credits** In this course, the student will learn to design a Microsoft Windows 2003 network infrastructure. The student will analyze business and technical requirements, design a network infrastructure, design for WAN and Internet connectivity, and develop a management and implementation strategy for networking. At the conclusion of this course, the student will earn three credits, and be ready to take the Designing a Microsoft Windows 2003 Network Infrastructure MCSE exam. (Prerequisite: NETW 195)

- ▲ **NETW-215 Advanced Routing/CCNP; 4 credits** This course is designed to provide students with classroom and laboratory experience on advanced routing. The student will learn how to use and configure Cisco routers connected in local-area networks (LANs) and wide-area networks (WANs) typically found at medium to large network sites. Upon completion of this course, the student will be able to select and configure a scalable IP address solution (including route summarization) for a branch office environment, given a list of specifications. He/she will select and implement the technologies necessary to redistribute between and to support multiple, advanced, IP routing protocols, given a network specification, configure and test edge router connectivity (either single or multihomed connection) into BGP network, given a network specification, and configure access lists. Given a specification containing multiple routed and routing protocols, the student will implement solutions in a laboratory environment. (Prerequisite for this course is a grade of “C” or higher in ELEC 152 or NETW 152 or CCNA)

- ▲ **NETW-225 Remote Access/CCNP; 4 credits** This course is designed to provide students with classroom and laboratory experience in building Cisco Remote Access Networks. The student will learn how to build, configure and troubleshoot a remote access network to interconnect central sites to branch offices and home offices. They also learn how to control access to the central site, as well as to maximize bandwidth utilization over the remote links. Upon completion of this course, the student will be able to identify the appropriate Cisco products for a given set of WAN technology requirements, including permanent or dialup access between a central site, branch office, and telecommuters. Given a set of WAN topologies and specifications, the student assembles and configures Cisco equipment to establish appropriate WAN connections, enables protocols and technologies that allow traffic flow between multiple sites, while minimizing the amount of overhead traffic on each connection, and implements quality of service capabilities to ensure that mission critical applications receive the required bandwidth within a given topology. Within a given WAN topology, the student will design and implement applicable access control measures to allow desired access into the network, and use Cisco product features to troubleshoot device protocols and technologies. (The Prerequisite for this

course is a grade of "C" or higher in ELEC 152 or NETW 152 or a CCNA)

- ▲ **NETW-235 Applied Wireless Security; 3 credits** The objective of this course is to provide a hands-on understanding of the technologies and challenges relevant to deploying (set-up, configuration, and installation) and securing wireless LANs. The emphasis is on auditing tools, types of attack, encryption, wireless LAN security solutions and policy. The course also covers legislation, authentication, and the computer fraud and abuse act. The student will understand wireless systems design and operational considerations from a security point of view. This course is useful for a variety of networking disciplines and will provide a foundation for courses dealing with security of network infrastructure. This course requires three hours of lecture and additional independent lab as necessary per week. (Prerequisites: A grade of "C" or better in NETW 107 and NETW 125 or instructor approval)
- ▲ **NETW-236 Computer Forensics and Investigation; 3 credits** This course provides a hands-on understanding of the methods, technologies, and challenges relevant to properly conducting a computer forensics investigation. The emphasis is on understanding computer investigations, the investigator's office, laboratory and tools, digital evidence controls, and processing of crime and incident scenes. The course also covers working with various operating systems, including Windows, DOS, Macintosh, and Linux. Other topics covered include boot processes, disk structures, data acquisition, recovering image files, network forensics, being an expert witness, and reporting investigation results. This course is useful for a variety of networking disciplines and will provide a foundation for courses dealing with security of network infrastructure. Additionally, the course maps to the objectives of the International Association of Computer Investigative Specialists (IACIS) certification. This course requires 3 hours of lecture and additional independent lab time as necessary per week. (Prerequisite: COMP 129 or instructor approval).
- ▲ **NETW-251 Multilayer Switching/CCNP; 4 credits** This course, CCNP 3: Multilayer Switching, is the third of four courses leading to the Cisco Certified Network Professional (CCNP) designation. CCNP 3 introduces students to the deployment of state-of-the-art campus LANs. The course focuses on the selection and implementation of the

appropriate Cisco IOS services to build reliable, scalable, multilayer-switched LANs. Students will develop skills with VLANs, VTP, STP, inter-VLAN routing, redundancy, Cisco AVVID, QoS issues, campus LAN security and transparent LAN services. At the conclusion of this course, the student will earn 4 credits. (Prerequisite: A grade of "C" or higher in ELEC 152 or NETW 152. Successful completion of the CCNA certification exam will also be accepted as a prerequisite for this course).

- ▲ **NETW-252 Network Troubleshooting/CCNP; 4 credits** This course, CCNP 4: Network Troubleshooting, is the last of four courses leading to the Cisco Certified Professional (CCNP) certification. CCNP 4 teaches students how to troubleshoot network problems. This course focuses on documenting and baselining a network, troubleshooting methodologies and tools, and Layer 1 to 7 troubleshooting. Network configuration examples will demonstrate management and troubleshooting techniques. Problem-solving checklists and worksheets help the student organize and document troubleshooting steps. At the conclusion of this course, the student will earn 4 credits. (Prerequisite: A grade of "C" or better in NETW 215, NETW 225, and NETW 251.)

## Nursing

- ▲ **NURS-106 Introduction to Associate Degree Nursing; 3 credits** This pre-nursing course introduces the student to the realm of Associate Degree nursing. Emphasis will be placed on problem-solving, critical thinking and application – those concepts essential to the role of the Associate Degree Nurse. The nursing process will be introduced, as well as therapeutic communication skills and basic physical assessment techniques. Health, professional and wellness topics will be integrated throughout the course. Medical terminology will also be integrated.
- ▲ **NURS-160 Introduction to Human Needs; 3 credits** The first course in the Nursing Program introduces the student to the practice of professional nursing, the Human Needs framework, health assessment and the elements of reasoning used in critical thinking. Students will learn to calculate medications, use basic communication interventions and engage in strategies that will promote success in the program. (Prerequisite: Admission to the Nursing Program; Prerequisite or Corequisite: BIOL 111 and PSYC 106)
- ▲ **NURS-161 Nursing and Human Needs I; 7 credits** This Nursing Course focuses on the Human Needs Framework, health assessment and the elements of reasoning used in critical thinking. The student uses caring interventions, communication techniques and teaching/learning interventions to care for adult, geriatric and oncology clients. (Prerequisites: BIOL 111, PSYC 106 and NURS 160; Prerequisite or Corequisite: BIOL 112 and PSYC 208)
- ▲ **NURS-162 Nursing and Human Needs II; 8 credits** In Nursing 162, the student uses the Human Needs Framework to care for individuals undergoing surgery and for those with alterations in mobility. The needs of the childbearing and child caring family and issues of human sexuality are also addressed. (Prerequisites: NURS 161, BIOL 112 and PSYC 208; Prerequisite or Corequisite: BIOL 213)
- ▲ **NURS-163 Nursing and Human Needs in the Community; 2 credits** This course examines human needs in the community. The influence of the family, cultural diversity and financial concerns on the delivery of community-based care is explored. In addition, the varied roles and practice settings of the community-based nurse and the basic principles of epidemiology are discussed. (Prerequisite: NURS 161)
- ▲ **NURS-260 Issues in Nursing; 2 credits** This course introduces students to current issues in nursing and health care. A range of topics is explored from philosophical, theoretical, ethical, social, economic, historical and research perspectives. A critical thinking approach that incorporates the elements of reasoning and universal intellectual standards, focuses the student on generating new thoughts, understandings, beliefs and insights. (Prerequisite: NURS 161)
- ▲ **NURS-261 Nursing and Human Needs III; 8 credits** In Nursing III, the student uses the Human Needs Framework to care for individuals with alterations in mental health, oxygenation, tissue perfusion and metabolism. (Prerequisites: NURS 162 and BIOL 213)
- ▲ **NURS-262 Nursing and Human Needs IV; 5 credits** In Nursing 262, students use the Human Needs Framework to care for clients with alterations in nutrition, absorption, elimination, sensation and perception. (Prerequisite: NURS 261)

▲ **NURS-263 Managing and Coordinating Nursing Care; 4 credits** In Managing and Coordinating Nursing Care, students use the Human Needs Framework to integrate nursing management concepts and principles in planning the care of groups of clients in the acute care setting. (Prerequisite: NURS 262)

▲ **NURS-295 Special Project - Nursing; 1 to 6 credits** The student will prepare an individualized plan of study in behavioral terms. The student and the instructor will complete a contract which will include a set of objectives, methods of achievement and plan for evaluation. The instructor will serve as a preceptor and consultant in guiding the student through the theoretical and laboratory components of the study plan.

## Paralegal Studies

▲ **PLGL-105 Introduction to Law and Litigation; 3 credits** This course is designed to give an overview of the law, court systems and rules of legal procedure. It also covers ethical and professional responsibilities and tasks essential to the roles of the participants in the legal process, with emphasis on the role of the paralegal and the lawyer, in various types of legal settings.

▲ **PLGL-106 Legal Research and Writing; 4 credits** This course is an introduction to legal research and writing. The course will provide a working knowledge of and an understanding of legal research materials, tools and methods. Students will learn to develop research and writing strategies, and will learn to research and write case briefs, legal briefs and legal memoranda. The course will provide the student with the knowledge and skills needed to create basic legal research strategies, perform the necessary research and communicate their findings in the proper written format. (Prerequisites or Corequisites: ENGL 121 and PLGL 105)

▲ **PLGL-125 Real Property Transactions; 3 credits** This course is an introduction to Real Estate Law. Topics of study include property rights, principles of land ownership, sale, financing, conveyance, contracts, liens, mortgage financing, deeds, recording, settlement concepts and other property concepts. Upon completion of the course, the student will have achieved a survey of basic real estate law concepts to provide a fundamental understanding of real estate law that is necessary to proceed with real estate practice as a paralegal, and will be able to draft

real estate documents from the inception of the real estate transaction to its closing. **NOTE: This course is offered in the Fall term only.** (Prerequisite or Corequisite: PLGL 105)

▲ **PLGL-126 Constitutional Law; 3 credits** This course is designed to give an overview of the U.S. Constitution and Constitutional Law, which is essential to the role of the paralegal in understanding the law and in assisting the attorney in many legal matters. **NOTE: This course is offered in the Fall term only.**

▲ **PLGL-135 Family Law; 3 credits** The purpose of the Family Law Course is to give legal assistants an understanding of domestic relations law. Students will learn how the laws governing family situations are applied. The content of the course covers dissolution, child custody, child support, alimony, property settlement agreements, orders to show cause, domestic violence and adoption. The students will be able to define and differentiate between the various grounds for divorce and annulment, and they will be able to prepare all forms and pleadings necessary for divorce, and annulment proceedings. This course is designed to give an overview of the law, rules of procedure, ethical and professional responsibilities and tasks essential to the role of the paralegal in assisting the attorney in the family law litigation process. **NOTE: This course is offered in the Fall term only.** (Prerequisite or Corequisite: PLGL 105)

▲ **PLGL-136 Administrative Law; 3 credits** This course presents basic concepts of administrative law and procedure in federal, state and local jurisdictions, with emphasis on paralegal's role in the administrative process. Substantive topics include sources of administrative hearings, remedies and judicial review. Procedural topics include agency operation, adjudication, hearing preparation and administrative and judicial appeals. The course includes units covering administrative law in operation in Social Security Administration and Workers' Compensation cases. (Prerequisite or Corequisite: PLGL 105)

▲ **PLGL-145 Professional Standards in Ethics for Legal Assistants; 3 credits** Students will learn professional responsibilities, and they will have a knowledge of the ethical ramifications of their conduct and work as a legal assistant. Course curriculum includes units on the New Jersey Rules of Professional Conduct, the ABA Model Code, the NALA Code of Ethics, etc. (Prerequisite: or Corequisite: PLGL 105)

▲ **PLGL-205 Litigation Assistance Procedures; 3 credits** The purpose of this course is to train paralegals/legal assistants to perform, under the direction and supervision of a lawyer, civil litigation support work, which for the most part requires sufficient knowledge of legal concepts and which, absent the paralegal or legal assistant, would be performed by a lawyer. It is not intended to be a course which teaches individuals to litigate their own cases or assist others in litigation, absent the supervision of a lawyer. A paralegal/legal assistant may not engage in the practice of law by accepting cases, giving legal advice, appearing in court, setting fees, etc. Engaging in the unauthorized practice of law is a crime in the State of New Jersey. This course is designed to give an overview of the law, rules of procedure, ethical and professional responsibilities, and tasks essential to the role of the paralegal in assisting the attorney and the client in the civil litigation process. **NOTE: This course is offered in the Spring term only** (Prerequisite: PLGL 105 or instructor's approval)

▲ **PLGL-206 Torts; 3 credits** This course is designed to give an overview of Tort law in the traditional areas of Intentional, Negligent and Strict Liability Torts, and commonly employed defenses. It also provides an introduction to ethical and professional responsibilities, and tasks essential to the role of the paralegal in assisting the attorney in the civil litigation process arising out of a cause of action in Tort. **NOTE: This course is offered in the Spring term only.** (Prerequisite: PLGL 105 or instructor's approval)

▲ **PLGL-207 Moot Court; 4 credits** The Court Competition will be a combination of in-class study and an independent study. The student will research a factual situation and prepare for an appellate trial. The preparation will consist of researching the legal questions either individually or in two member teams and preparing an appellate brief, which will be 75% of the grade. The research teams will then compete against each other in a moot court competition (25% of grade), with the eventual winning team meeting in the competition finals. The Moot Trial will be conducted as if it were a real appellate trial with judges. The students will be developing research skills and through their participation in the trial, presentation and advocacy skills. (Prerequisite: PLGL 106 or approval of instructor)

▲ **PLGL-210 (t) Computer Applications in Law; 3 credits** This course is designed to familiarize paralegals with the various use of computers and technology in a law office. This includes: 1) computerized legal and factual research using online for fee services (Westlaw and/or Lexis), CD ROM products and Internet resources; 2) software applications in document preparation, file management and law office management; 3) word processing; 4) electronic filing of litigation documents; 5) email; and 6) other law office technology such as fax machines, scanners, etc. Students who are unskilled in the use of computers and/or keyboarding should take the following course(s): BTEC 106, the ABC's of PC's and/or BTEC 105, Keyboarding. (Prerequisites: PLGL 105 and PLGL 106)

▲ **PLGL-215 Criminal Procedure; 3 credits** The purpose of this course is to train paralegals/legal assistants to perform, under the direction and supervision of a lawyer, criminal litigation support work, which, absent the paralegal or legal assistant, would be performed by a lawyer. The course is designed to give an overview of the law, rules of procedure, ethical and professional responsibilities, and tasks essential to the role of the paralegal in assisting the attorney and the client in the criminal litigation process. **NOTE: This course is offered in the Spring term only.** (Prerequisite: PLGL 105 or instructor's approval)

▲ **PLGL-225 Wills, Estates and Probate; 3 credits** This course is designed to give an overview of the law, rules of procedure, ethical and professional responsibilities and tasks essential to the role of the paralegal in assisting the attorney in the wills, estates and probate process. Students will be able to draft wills, and living wills following applicable laws and procedures, and complete federal estate, gift tax and state inheritance tax returns. They will be able to set up various trusts and follow procedures for obtaining life insurance benefits. (Prerequisite: PLGL 105 or instructor's approval)

▲ **PLGL-226 Corporate Law Procedure; 3 credits** This course is designed to give an overview of the law, ethical and professional responsibilities, and tasks essential to the role of the paralegal in assisting the attorney, and the client in the formation, operation and dissolution of the following types of business entities: sole proprietorships, general partnerships, limited partner-

ships, limited liability partnerships (LLP's), limited liability companies(LLC's), "C" Corporations and "S" Corporations. **NOTE: This course is offered in the Fall term only.** (Prerequisite: PLGL 105 or instructor's approval)

▲ **PLGL-227 Introduction to Bankruptcy; 1 credit** The purpose of this course is to train paralegals/legal assistants to perform, under the direction and supervision of a lawyer, bankruptcy support work, which for the most part requires sufficient knowledge of legal concepts and which, absent the paralegal or legal assistant, would be performed by a lawyer. It is not intended to be a course which teaches individuals to prepare and file their own bankruptcy petitions or assist others in filing such petitions. It is not designed to prepare paralegals to act as Bankruptcy Trustees. A paralegal/legal assistant may not engage in the practice of law by accepting cases, giving legal advice, appearing in court, setting fees, etc. Engaging in the unauthorized practice of law is a criminal offense in the State of New Jersey. This course is designed to give an overview of the law, rules of procedure, ethical and professional responsibilities, and tasks essential to the role of the paralegal in assisting the attorney in bankruptcy matters. **NOTE: This course is offered in the Spring term only.** (Prerequisite: PLGL 105 or instructor's approval)

▲ **PLGL-228 Introduction to Workers' Compensation; 1 credit** The purpose of this course is to train paralegals/legal assistants to perform, under the direction and supervision of a lawyer, workers' compensation litigation support work, which for the most part requires sufficient knowledge of legal concepts and which, absent the paralegal or legal assistant, would be performed by a lawyer. It is not intended to be a course which teaches individuals to litigate their own workers' compensation cases, or assist others in such litigation. A paralegal/legal assistant may not engage in the practice of law by accepting cases, giving legal advice, appearing in court, setting fees, etc. Engaging in the unauthorized practice of law is a criminal offense in the State of New Jersey. This course is designed to give an overview of the law, rules of procedure, ethical and professional responsibilities, and tasks essential to the role of the paralegal in assisting the attorney in the workers' compensation litigation process. **NOTE: This course is offered in the Spring term only.** (Prerequisite: PLGL 105 or instructor's approval).

▲ **PLGL-235 Entertainment Law I; 3 credits** This course deals with entertainment law with particular attention devoted to the music and recording industry and contract law. It looks at the role of the artist, manager, attorney and others involved in this area. **NOTE: This course is offered in the Summer term.**

▲ **PLGL-237 Elder Law; 3 credits** The purpose of this course is to train paralegals/legal assistants to perform, under the direction and supervision of a lawyer, "Elder Law" support work, which for the most part requires sufficient knowledge of legal concepts and which, absent the paralegal or legal assistant, would be performed by a lawyer. It is not intended to be a course which teaches individuals to plan or handle their own affairs involving "Elder Law" issues, or to assist others in planning or handling their affairs in these matters. It is not designed to teach document preparation in the absence of a supervising lawyer. A paralegal/legal assistant may not engage in the practice of law by accepting cases, giving legal advice, appearing in court, setting fees, etc. Engaging in the unauthorized practice of law is a criminal offense in the State of New Jersey. This course is designed to give an overview of the law, rules of procedure, ethical and professional responsibilities, and tasks essential to the role of the paralegal in assisting the attorney in matters relating to what has become known as "Elder Law." **NOTE: This course is offered in the Spring term only.** (Prerequisite: PLGL 105 and PLGL 225 or instructor approval)

▲ **PLGL-245 Introduction to Social Security Disability; 1 credit** The purpose of this course is to train paralegals/legal assistants to perform, under the direction and supervision of a lawyer, Social Security Disability claims and appeals support work, which for the most part requires sufficient knowledge of legal concepts and which, absent the paralegal or legal assistant, would be performed by a lawyer. It is not intended to be a course which teaches individuals to prepare and file their own Social Security Disability claims or appeals, or to assist others in filing such claims or appeals. It is not designed to prepare paralegals to act as "Representatives" of claimants pursuant to Title 42, Section 406(a)(1) of the U.S. Code. A paralegal/legal assistant may not engage in the practice of law by accepting cases, giving legal advice, appearing in court, setting fees, etc. Engaging in the unauthorized practice of law is a criminal

offense in the State of New Jersey. This course is designed to give an overview of the law, rules of procedure, ethical and professional responsibilities, and tasks essential to the role of the paralegal in assisting the attorney in the Social Security Disability claim and appeals process. **NOTE: This course is offered in the Spring term only.** (Prerequisite: PLGL-105 or instructor's approval)

▲ **PLGL-295 Special Project – Paralegal Studies; 1 to 4 credits** Students will work independently on legal problems not suitable to one of the other Paralegal Studies courses. A written report will be submitted, with the extent and quality of the project and report to be previously agreed upon by the instructor and the student. (Prerequisites: 15 credits of Paralegal course work including PLGL 106)

▲ **PLGL-299 Paralegal Internship; 3 credits** Students will serve for a specified number of hours in actual paralegal employment and submit an internship log of the experience. (Prerequisites: 30 credits to include 16 credits of the required career studies courses: PLGL 105, PLGL 106, PLGL 145, PLGL 205 and PLGL 210. A grade of "C" or higher is required in each career study course. Approval of Program Director and Career Services Representative) study course.

## Philosophy

● **PHIL-105 (HU) Practical Reasoning; 3 credits** The focus of this course is the development of students analytic skills. Students will evaluate claims, distinguish arguments from explanations, identify examples of pseudo-reasoning and use inductive generalizations. Problem-solving will be the primary mode of learning. (Prerequisite: READ 092, READ 095 or passing score in reading on Basic Skills Test)

● **PHIL-115 (HU) Introduction to Philosophy; 3 credits** Students investigate key issues in philosophy, including the nature of self, knowledge and truth, freedom and determinism, morality, the nature of the universe, the existence of God, death and afterlife, meaning and purpose. Emphasis will be given to clarifying students' own thinking on these issues through reading, reflection and discussion. (Prerequisite: READ 092, READ 095 or passing score in reading on Basic Skills Test)

■ **PHIL-215 (HU) Topics in Philosophy; 1-3 credits** A more in-depth analysis of a specific philosophical topic will be undertaken in this course. Topics will change each semester and students can re-register for the course whenever a new topic is discussed. The number of credits will be determined by the nature of the subject matter. (Prerequisite: Any philosophy course or permission of the instructor.)

● **PHIL-225 (HU) (CG) Comparative Religion; 3 credits** Students will explore the ideas, assumptions and values of the religions of the world, viewing them comparatively in the search for common truths and principles. Among the religions to be studied are the Eastern religions of Hinduism, Taoism, Confucianism and Buddhism, and the Western religions of Judaism, Christianity and Islam. (Prerequisite: READ 092, READ 095 or passing score in reading on Basic Skills Test)

● **PHIL-226 (HU) Logic; 3 credits** Students will learn to develop methods of correct reasoning and ways of avoiding formal and informal fallacies. Emphasis will be placed on the analysis of words, statements and arguments using traditional logic. (Prerequisite: MATH 012, MATH 015 or passing score in computation on Basic Skills Test)

● **PHIL-227 (HU) Introduction to Ethics; 3 credits** Students will become familiar with many approaches to deciding what is "right" and "wrong" in human behavior. The course begins with a look at several ethical theories, each intended to provide a framework for moral decision-making. The second part of the course involves discussion of many controversial issues such as the taking of human life, sexual behavior, abortion, business, medical practice, etc. (Certain sections of the course will be designated to focus on questions within one particular area, e.g., Business Ethics, Nursing Ethics, Environmental Ethics. See the Master Schedule for designated topics). (Prerequisite: READ 092, READ 095 or passing score in reading on Basic Skills Test)

▲ **PHIL-295 Special Project – Philosophy; 1 to 6 credits** (Prerequisite: PHIL 115 or instructor's approval.)

## Photography

● **PHTY-105 (HU) Photography As an Art Form; 3 credits** Through lectures, group discussions, media presentations, gallery visits and personal investigation, the student will develop an understanding of the history of photography and how photography can be a medium of expression and communication. This is not a darkroom course.

■ **PHTY-111 (HU) Photography I; 3 credits** Students develop a basic understanding of the camera, film processing and printing, while exploring the possibilities of black and white photography as a medium of visual communication and personal expression. Students must provide a manually operated 35 mm camera.

■ **PHTY-112 (HU) Photography II; 3 credits** Students will continue to improve on basic black and white photographic skills while learning some new photographic techniques, e.g., solarization, multiple exposure, negative printing and hand coloring to solve thought-provoking photographic problems. (Prerequisite: PHTY 111)

▲ **PHTY-120 Introduction to Digital Photography; 3 credits** Students will develop a basic understanding of the digital camera and current electronic imaging technology. The course will explore the use of the digital camera storage media, imaging software, and printing techniques. While establishing technical skills, students will explore the possibilities of this medium for visual communication and personal expression. Previous experience with photography and the computer is beneficial but not required. Additional lab time is required (four to six hours per week). Additional expenses will be incurred.

▲ **PHTY-215 Color Photography; 3 credits** The student will learn basic color skills, including color film development and color printing. These skills will be used in producing creative and original color photographs. (Prerequisites: PHTY 111 and PHTY 112; Prerequisite or Corequisite: PHTY 105)

▲ **PHTY-216 Portfolio Development; 3 credits** The student will continue the evolution of a personal approach to photography through individual assignments leading to the development of a portfolio. (Prerequisites: PHTY 105, PHTY 111 and PHTY 112)

▲ **PHTY-225 Computer Enhanced Photography; 3 credits** Using color and

black and white camera-made images, the student will explore the creative possibilities of the computer and Adobe Photoshop software in image altering and enhancement. (Prerequisite: PHTY 111; Prerequisite or Corequisite: PHTY 105)

- ▲ **PHTY-235 Large Format Photography; 3 credits** The student will develop studio and field skills, including view camera techniques, exposure and development controls and basic lighting. Aesthetic concerns and the development of personal style will be stressed. (Prerequisites: PHTY 111 and PHTY 112; Prerequisite or Corequisite: PHTY 105)
- ▲ **PHTY-295 Special Project – Photography; 1 to 6 credits** Students must present a proposal for a project of advanced study. Also, they must have successfully completed all previous coursework in the subject area, and must meet with the appropriate instructor for approval before registering.

## Physics

- **PHYS-106 (SC) Astronomy; 3 credits** This introductory astronomy course is for college students who are curious about the universe. Topics covered include the historical foundations of astronomy, the tools and techniques used by modern astronomers, the sun, planets, moons, and minor bodies of our solar system, and the processes by which it formed. (Prerequisites: MATH 015 and READ 095 or passing scores in computation and reading on Basic Skills Test)
- **PHYS-108 (SC) Physics in Life; 4 credits** This is a general education lab science course for non-science majors. There are no college-level pre-requisites. The goal of this course is a general understanding of the physical principles in everyday life with emphasis of how physicists approach the problem of describing nature in terms of experimental tests of physical theories. The course surveys motion and Newton's laws, the atomic structure of matter, heat and thermodynamics, sound and light waves, electricity and magnetism, and modern physics. (Prerequisite: MATH 021 or MATH 025, READ 092 or READ 095, and ENGL 095 or passing scores in algebra and reading and writing on Basic Skills test)
- **PHYS-111 (SC) General Physics I (Non-Calculus); 4 credits** The student will develop skills in laboratory and problem-solving techniques as they relate to the physical sciences and modern technology. The student will apply these skills to the solution of problems involving basic concepts of vectors, static's, kinematics, dynamics, work and energy; momentum; rotational mechanics; mechanical, molecular and thermal properties of matter; and wave motion and sound. (Prerequisite: A grade of "C" or higher in MATH 152)
- **PHYS-112 (SC) General Physics II (Non-Calculus); 4 credits** The student will apply the skills developed in PHYS 111 to the solution of problems involving basic concepts of electrostatics, DC electricity, magnetism, magnetic induction, light, and modern physics. (Prerequisite: A grade of "C" or higher in PHYS 111)
- **PHYS-121 (SC) General Physics I; 4 credits** The student will employ calculus in the development of the basic concepts of vectors; static's, kinematics, dynamics, work and energy; momentum; rotational mechanics; molecular and thermal properties of matter; wave motion; and sound. (Prerequisite: A grade of "C" or higher in MATH 171 or permission of the Engineering Department)
- **PHYS-122 (SC) General Physics II; 4 credits** The student will employ calculus in the development of the basic concepts of electrostatics, DC circuits, magnetism, magnetic induction, AC circuits, light and optics. (Prerequisite: A grade of "C" or higher in PHYS 121 and MATH 172 or permission of the Engineering Department)
- **PHYS-223 (SC) General Physics III; 4 credits** Students will relate classical and relativistic mechanics in the investigation of contemporary physics. They will solve problems related to harmonic motion, thermodynamics, special relativity, elementary quantum theory, atomic nature of matter and elementary nuclear and particle physics. (Prerequisite: A grade of "C" or higher in PHYS 122)
- **POLI-105 (SS) American National Government; 3 credits** Students in American National Government study the structure and philosophy of the United States government, including themes of national economy, energy, environment, health, education, welfare, civil rights, civil liberties, foreign policy and political parties. Course activities include the use of teacher and guest lectures, small group discussion, student presentations and video offerings.
- **POLI-109 (SS) Current Global Topics; 3 credits** This course introduces students to a diverse range of international topics that the community of nation-states is currently facing. The topics to be examined include armed conflicts between and within countries, ethnic strife, weapons of mass destruction, terrorism, globalization of the economy, natural resource utilization, and world population growth. Students will read from a wide variety of sources as they learn more about these topics and their potential impacts on the international community.
- **POLI-115 (SS) State, County, and Local Government; 3 credits** The student will study the structure and philosophy of state, county and local governments within the United States--though particular attention is given to these themes as they apply in New Jersey. Topics include the economy, energy, environment, health, education, welfare, law enforcement, political parties, civil rights and civil liberties. Course activities include the use of teacher and guest lectures, small group discussion, student presentations and video offerings.
- **POLI-225 (SS) International Relations; 3 credits** In this course students will be exposed to various theories of international relations, learn about concepts like the state, the nation, the nation-state, sovereignty, and power, investigate the causes of war, examine the role of international law, international organizations and diplomacy in world politics, and explore such issues as arms, races, disarmament, and human rights.
- **POLI-227 (SS) Comparative Politics; 3 credits** In this course students will be exposed to various theories of comparative politics, learn about comparative research methods, and examine the political, economic and governance systems of countries from around the world including: industrialized democracies, current and former communist regimes, and less developed nations. Countries to be analyzed

## Political Science

- **POLI-101 (SS) Introduction to Political Science; 3 credits** As an introductory course in Political Science, students examine basic concepts of democracy and dictatorship, the nation-state, law, ideology, interest groups and political parties. Course activities include use of teacher and guest lectures, small group discussion, student presentations and video offerings.

include the United Kingdom, France, Germany, European Union, Russia, China, Mexico, India, Iran and South Africa.

- **POLI-228 (SS) Environmental Politics and Policy; 3 credits** This course will introduce students to the field of environmental politics and policy, or the connections and interactions between environmental concerns and the political process. Students will be exposed to a number of environmental problems and the political and legislative responses government has taken to address those problems. This course will focus primarily on environmental politics and policy in the USA.

- ▲ **POLI-295 Special Project – Political Science; 1 to 3 credits** Students will pursue and complete one individualized, in-depth study of a topic relevant to the discipline of political science. The topic may deal with the political dimension of such themes as economy, energy, environment, health, education or human services. (Prerequisite: Approval of instructor)

- ▲ **POLI-299 Political Science Internship; 3 credits** The student will serve as an intern/observer with a municipal, county or state agency. After gaining a first-hand experience as to how that agency operates and the various duties involved in working within that agency, the student should reach a decision as to whether or not to work in the field upon graduation from college. (Prerequisite: Approval of instructor and Career Services Representative)

## Psychology

- **PSYC-105 (SS) Introduction to Psychology I; 3 credits** Students will demonstrate an understanding of psychology as a science. They will complete exercises covering fundamental areas of the discipline: history of psychology, scientific method, sensation and perception, learning and memory, IQ and personality testing. Students will gain the ability to examine these subjects from a critical as well as diverse point of view; the roles of gender, cultural and individual differences are systematically explored. Service-learning is an option.
- **PSYC-106 (SS) Introduction to Psychology II; 3 credits** Students will demonstrate an understanding of Psychology as an applied science. They will complete exercises covering the relevant areas: social and interpersonal behavior, motivation, emotion, psychological disorders, personality theories and the psychotherapies. Students will gain the ability to analyze a variety of theoretical perspectives from critical and diverse points of view while applying them to problems of daily living. Service-learning is an option.
- **PSYC-107 (SS) Personality and Adjustment; 3 credits** This course is designed to help students increase their self-knowledge through in-depth studies of three theoretical views of man, the effects of stress on mind and body, and reliable methods for coping with stress. Students will explore first-hand the role of exercise in improving cardiovascular functioning. Students will also learn how to monitor blood pressure and develop the understanding of the relationship between stress and hypertension. Speakers will visit the classroom to discuss Marriage/Divorce, Addiction and Death/Dying as part of an examination of crisis which typically occur in adulthood and later years.
- **PSYC-111 (SS) Introduction to Human Services; 3 credits** This course provides new students with an introduction to the historical perspective of the human services movement. Students are introduced to the roles of Human Service Professional (HSP) in a variety of helping systems where they assist a wide array of clients in need. Human Services models are extensively covered in conjunction with other closely associated helping models. An introduction to the primary method of treatment used by HSP is applied to the individual client, their family system, and community so as to show the challenges to teaching effective problem solving skills and wellness. Emphasis is also placed on how HSPs work within different social and helping networks while learning the importance of their professional and ethical obligations set out by the National Organization of Human Services. Students will be required to participate in class field trips and begin the first phase of their independent fieldwork which will require 20 hours of field experience outside of lecture.
- **PSYC-125 (SS) Introduction to Addiction Studies; 3 credits** This course is a general, introductory course in addiction studies. The course is primarily oriented toward helping students understand the fundamentals of addictive behavior and mental process, especially as regards (a) the biomedical forces integral to chemical dependency (b) drug and alcohol education and awareness (c) the recovery process (d) personal wellness (e) professional consultation and (f) medical issues related to chemical abuse, such as HIV and AIDS.
- ▲ **PSYC-127 Evaluation and Diagnosis of the Addicted Client; 3 credits** This course is designed to provide students with the fundamental skills needed for evaluating clients who may or may not have substance abuse as a primary referral issue. Students will explore the basic issues, concepts, and trends in addiction as they relate to proper assessment and documentation for individuals suffering from addictions (especially addictions to drugs, alcohol and/or gambling). (Prerequisite: PSYC 125)
- ▲ **PSYC-131 Empowerment Skills Worker I; 3 credits** This class is the first of two classes required for students to earn a Family Development Credential in New Jersey. The Family Development Credential is a professional training and credentialing program for family workers. To earn the credential, students must successfully complete both Family Development courses and work with a portfolio advisor to document their ability to practice the skills they learned in class. The general thrust of the credential and this course is the development of skills needed to ascertain and nurture the strengths of families. Students are expected to learn how to effectively communicate with families for the purpose of helping them access their adaptive potentials in dealing with day-to-day stressors and other life problems. This class emphasizes the value of diversity, communications skills, self-care, and strength-based assessment in learning how to interact with families in a productive manner. The ultimate goal is to teach students how to foster the autonomy and well-being of families.
- ▲ **PSYC-132 Empowerment Skills Worker II; 3 credits** This class is the second of two classes required for students to earn a Family Development Credential in New Jersey. The Family Development Credential is a professional training and credentialing program for family workers. To earn the credential, students must successfully complete both Family Development courses and work with a portfolio advisor to document their ability to practice the skills they learned in class. The general thrust of the credential and this course is the development of skills needed to ascertain and nurture the strengths of families. Students are expected to learn how to effectively communicate with families for the purpose of help-

ing them access their adaptive potentials in dealing with day-to-day stressors and other life problems. This class emphasizes collaborative problem-solving, empowerment skills, the use of specialized family services in learning how to interact with families in a productive manner. The ultimate goal is to teach students how to foster the autonomy and well-being of families. (Prerequisite: PSYC 131)

**PSYC-135 Death & Dying; 3 credits** This course is an in-depth study of the terminally ill person. Students will analyze the dying person's basic needs, psychological make-up, family situation and cultural background. Through class exercises and discussion, students will also explore their own feelings about death and dying and learn how these feelings affect their performance as caregivers.

- **PSYC-185 (SS) Introduction to Creative Arts Therapy; 3 credits** This is a survey course of the various creative arts therapy modalities. Students will be introduced to movement therapy, writing therapy, music therapy, psychodrama and art therapy techniques. This course is both experiential and didactic. Auditing of this course is not permitted.

- ▲ **PSYC-202 One-Stop, Workforce and Career Development I; 3 credits** This is the first of three three-credit courses to prepare those either working in or desiring to work in a variety of career/workforce development settings (One-Stop Career Centers, state employment services offices, school-to-work programs, community based organizations, social/human services, vocational rehabilitation organizations and workforce development settings) to work more effectively to help people identify, obtain and maintain careers and jobs. The course will build student competency in the areas of understanding the workforce system, career and labor market information, helping/facilitation skills, the applications of technology and working with diverse populations. Upon successful completion of the three courses, students will have satisfied the educational requirement for the Career Development Facilitator Credential – a national credential requires college credit preparation. (Prerequisite: It is required that students complete either PSYC 105, PSYC 106, PSYC 111 or equivalent and secure a departmental approval before taking this course)

- ▲ **PSYC-203 One-Stop, Workforce and Career Development II; 3 credits** This

the second of three three-credit courses to prepare those either working in or desiring to work in a variety of career/workforce development settings. This course builds on the first course, OSWCD I, and focuses on understanding career development models as they apply to the workforce development system, comprehend and use career assessment instruments, both formal and informal within the scope of practice of a certified Career Development Facilitator, job identification and search assistance, demonstrate how to design and implement effective workforce/career development training programs and effectively utilize a program and case management process. Upon successful completion of this course and OSWCD III students will have satisfied the educational requirement for the Career Development Facilitator Credential – a national certification conferred by the Center for Credentialing and Education. (Prerequisite: PSYC 202)

- ▲ **PSYC-204 One-Stop, Workforce and Career Development III; 3 credits** This is the third of three three-credit courses to prepare those either working in or desiring to work in a variety of career/workforce development settings. This course will be built upon the competencies learned in OSWCD I and II. Students will become competent in ethical and/or legal issues relating to the scope of practice of a Nationally Certified Career Development Facilitator, understand and demonstrate public relations and advocacy skills and demonstrate how to be effective in making referrals and consulting others for assistance. This course includes an internship which will require the student to utilize the competencies acquired in all three courses in a workforce and/or career development work setting. Upon successful completion of the three courses students will have satisfied the educational requirement for the Career Development Facilitator Credential – a national certification conferred by the Center for Credentialing and Education. (Prerequisite: PSYC 203)

- **PSYC-205 (SS) Industrial/Organizational Psychology; 3 credits** This course is an applied psychology course designed to help students improve their understanding and skills in dealing with people in various roles and at different levels in the organization. Theories and principles of psychology are used to address problems of motivation, morale, productivity, leadership, communication and stress management in the workplace. In addition, case studies are used to

understand organizational culture group dynamics, the unique pressures of minorities, women and the handicapped in organizational settings. Cross-cultural practices, as well as the challenges of a high-technology society, are also considered. Field work and exercises related to career goals complete this course.

- **PSYC-206 (SS) Human Growth and Development I; 3 credits** The student will demonstrate an understanding of development from birth through adolescence. Emphasis will be placed on different theoretical views of development and reactions to them. The student will validate important concepts with theories, laboratory experience and research findings. (Prerequisite: PSYC 105 or PSYC 106)
- **PSYC-207 (SS) Human Growth and Development II; 3 credits** The student will demonstrate an understanding of human development in the second half of the life cycle. Emphasis will be placed on a lifespan perspective of important developmental tasks encountered during young adulthood, middle age and later life, such as deciding on a career, selecting a mate, adjusting to parenthood, adjusting to a decline in physical ability, establishing new life patterns in retirement, etc. Information will come from theory, research and first-hand observation. (Prerequisite: PSYC 105 or PSYC 106)
- **PSYC-208 (SS) Life Span Development; 3 credits** This course in Life Span Development examines age changes in behavior from conception through the end of the life cycle. Milestones in physical, cognitive and social development are charted for each stage of the life cycle. We will see how each unique life structure is shaped by numerous internal and external influences. By integrating experimental research findings with theories and case studies, students will be able to refine their own developmental perspective. Principles of human development, theoretical perspectives and experimental research data will be measured against each student's own experiences and personal observations. (Prerequisite: PSYC 105 or PSYC 106)
- **PSYC-209 (SS) Theories of Personality; 3 credits** In this course, students are introduced to the major thinkers, concepts, and trends within the field of personality study. This is accomplished via an introduction to the ideas of selected major personality theorists from the history of western psychology. Emphasis will be placed upon

understanding how these theorists view the development of personality and the implications of each theory's assumptions regarding human nature. Students are asked to grapple with such fundamental questions as: What is personality? What factors may influence the development of personality? How are various personality theories similar and different? How are individual personalities similar and different? (Prerequisite: PSYC 106)

▲ **PSYC-212 Community Agencies and Human Service Systems; 3 credits**

Following the development of an understanding of how the Human Service philosophy is translated into action, the student will learn the skills of program planning and grant writing. Students will also investigate the local service delivery system and acquire a comprehensive overview of the resources available in Monmouth County through research and guest lectures. Service-learning is an option in this course. (Prerequisite: PSYC 111 for Human Services Program majors)

▲ **PSYC-215 Counseling Techniques; 3 credits**

The student will consider basic strategies for helping: interviewing, individual and group counseling. Competency will be evaluated through the use of videotapes, discussion and individual participation and practice. The student will be required to spend 30 hours in an internship to develop and practice the skills learned in class. Service-learning is an option in this course. (Prerequisites: PSYC 105 or PSYC 106; PSYC 111 required for Human Services Program majors)

■ **PSYC-216 (SS) Abnormal Psychology; 3 credits**

The student will demonstrate knowledge of the description, natural history and psychodynamics of various types of abnormal behavior in order to function effectively as a member of a treatment team. Students are required to spend 10 hours in field work to practice observation skills. (Prerequisites: PSYC 105 or PSYC 106; PSYC 111 required for Human Services Program majors)

■ **PSYC-217 (SS) (CG) Social Psychology; 3 credits**

This second level course is devoted to the scientific study of how thoughts, feelings and behaviors of individuals are affected by other people. It is a survey of the field of social psychology with a special emphasis on defining and explaining prejudice. Students study what psychologists have learned through research into social

perception, social influence, interpersonal attraction, helping and hurting behaviors, group dynamics and other fundamental topics in social psychology. The information acquired is then applied to an examination of the origins of prejudice, characteristics of prejudiced persons, the impact of prejudice on targeted groups, the individuals involved with prejudice and on society in general. While based primarily on a lecture format, this course also involves use of the internet for research, planned assignments and communication with the instructor and other students. (Prerequisite: PSYC 105 or PSYC 106 with a grade of "C" or higher)

■ **PSYC-218 (SS) Educational Psychology; 3 credits**

This course is designed to assist students with the application of psychological principles to classrooms at all educational levels. Topics include: cognitive development, learning theories, motivation, multicultural issues, and student assessment. Course activities include the use of instructor and guest lectures, small group discussion, and student presentations.

▲ **PSYC-219 Positive Psychology; 3 credits**

Positive psychology is a new, emerging sub-field that addresses important questions about how we lead our lives, find happiness and satisfaction in life, and deal with life's challenges. The main goal of this course is to review and summarize the major empirical findings and theories within each major area of positive psychology. A basic psychology premise is that the field of psychology is out of balance, with more focus on the negatives in human behavior than the positives. Firmly rooted in modern research and theory-building, students studying Positive Psychology will study, among other things, hope, forgiveness and the physical and mental benefits of positive emotions. (Prerequisite: PSYC 105 or PSYC 106)

▲ **PSYC-221 Individual Counseling for the Addicted Client; 3 credits**

This course is designed to be an introductory course in individual therapeutic interventions with clients suffering from addictions. The course focuses on individual counseling, crisis intervention, client advocacy and case management, and the legal aspects of counseling addicted clients. (Prerequisite: PSYC 125)

▲ **PSYC-222 Social, Cultural, and Familial Aspects of Addiction; 3 credits**

This course explores the addicted clients interpersonal milieu and the impact of their social situation on their lifestyle. The

course focuses on the role of families and communities in the addictive process. The issues that are the focus of this course are community and professional education, socio-cultural aspects of drug and alcohol addiction, socio-cultural sensitivity and education, community involvement and family counseling. (Prerequisite: PSYC 127)

▲ **PSYC-235 Group Dynamics; 3 credits**

The general purpose of this course is to acquaint students with the basic concepts, trends, and areas of discussion in the study of group therapy and group dynamics. The course is designed to give both theoretical and "hands-on" exposure to group psychological dynamics and group process. Students are primarily exposed to the theory and practice of group psychotherapy. Other material relevant to group psychology and group interactions is integrated within class discussions and groups interactions as well. This course is writing intensive. Students will be asked to participate in a mock therapy group. The class will integrate themes from other areas of group studies as well (e.g., discussions of general group dynamics, specialty and support groups, psycho-educational groups, and classroom dynamics). Auditing of this course is not permitted. (Prerequisites: PSYC 105 or PSYC 106; PSYC 111 required for Human Services Program majors)

■ **PSYC-245 (SS) Introduction to Quantitative Methods In Social Science Research; 3 credits**

Students will improve their ability to find, read and analyze published research in the Behavioral and Social Sciences. Students will engage in and analyze various methods of social science research and also learn the fundamentals of descriptive and inferential statistics. Students will be taught how to use computers, and using state-of-the-art statistical programs, will develop effective research and data analysis skills. (Prerequisites: MATH 025 or passing score in algebra on Basic Skills Test; PSYC 105 or PSYC 106; SOCI 101, CRJU 101 and POLI 101)

▲ **PSYC-285 Human Services Practicum; 1-3 credits**

Students will obtain practical and occupational experience working in a social service agency and be able to explore their interests and capabilities for growth in a beginning experience working with people on a facilitating level. They will be under the supervision of the instructor and a designated professional in the assigned agency. In-class supervision is required. Students must

assess and analyze agency service delivery to clients via assessments, process recordings, and papers reflecting target population, method and crisis intervention case study and professional development. Students are required to attend the seminar for the duration of the internship. One unit of credit shall be earned for each 75 hours of field work experience for a total of 225 hours and 3 credits. Number of credits to be earned in a semester must be determined with Human Services Program approval before registering. (Prerequisites: PSYC 111, PSYC 215, PSYC 235 and the approval of the instructor; Corequisites: PSYC 212, PSYC 216).

- ▲ **PSYC-295 Special Project - Psychology; 1 to 6 credits** (Prerequisite: Approval of instructor)

## Radio

- ▲ **RDIO-101 Introduction to Radio; 3 credits**  
Students will demonstrate an understanding of the history and theory of radio as a medium of mass communication, practice the skills necessary for radio production and become aware of the production roles in the operation of a radio station.
- ▲ **RDIO-202 Radio News and Public Affairs; 3 credits**  
The student will establish standards and skills for the selection, organization, writing and broadcasting of information. Exercises involve interviewing, researching, writing and editing material for broadcast. (Prerequisite: RDIO 101; Corequisite: COMM 115)
- ▲ **RDIO-295 Radio Internship; 1 to 6 credits**  
Students will design a project of advanced study. Students must have completed previous course work in the subject area and must meet with the appropriate instructor before registration. (Prerequisites: RDIO 101 and RDIO 202)
- ▲ **RDIO-299 Radio Internship; 1 to 6 credits**  
Students will practice radio skills in a real-world experience. They will work with an experienced practitioner who will guide and supervise their progress. Internship may be in the College radio station or a commercial radio station. (Prerequisites: RDIO 101, RDIO 202, COMM 115 and approval of instructor and Career Services Representative)

## Radiologic Technology

- ▲ **RADT-140 Introduction to Radiologic Technology; 5 credits**  
This introductory course provides a basic foundation for the practice of radiologic technology including methods of patient care, radiation protection principles and darkroom and image processing. (Prerequisite: Admission to the Radiologic Technology Program; Corequisites: RADT 141 and RADT 142)
- ▲ **RADT-141 Radiographic Exposure I; 3 credits**  
This course covers the principles of radiographic exposure, image production and the control of exposure factors in the production of radiographic images. Theoretical principles and mathematical formulas of basic x-ray production, characteristics of quality radiographs, exposure factors, control of radiographic density, contrast, resolution, sharpness and detail are also discussed. (Corequisites: RADT 140 and RADT 142)
- ▲ **RADT-142 Radiographic Procedures I; 5 credits**  
This course covers positioning terminology and anatomy and procedure protocols for chest, abdomen and upper extremity radiographic procedures. Students will demonstrate chest and abdomen procedures in the clinical setting. (Corequisites: RADT 140 and RADT 141)
- ▲ **RADT-145 Principles of Radiobiology; 2 credits**  
This course covers the effects of radiation exposure on human tissue. Cell life and function, cell division, cell and organ sensitivity to radiation, direct and indirect theories of radiation interaction, radiolysis, acute and long term effects of radiation exposure, dose response relationships and occupational and fetal exposures to radiation are also discussed. (Prerequisites: RADT 140, RADT 141 and RADT 142; Corequisites: RADT 146 and RADT 147)
- ▲ **RADT-146 Radiographic Exposure II; 2 credits**  
This course covers advanced topics of radiographic exposure, equipment operation and maintenance, malfunctions of the x-ray tube and imaging equipment, tube rating charts, image intensification, tomographic imaging and automatic exposure control systems. Special imaging techniques and the development of radiographic exposure charts are also discussed. (Prerequisites: RADT 140, RADT 141 and RADT 142; Corequisites: RADT 145 and RADT 147)
- ▲ **RADT-147 Radiographic Procedures II; 5 credits**  
This course covers positioning terminology, anatomy and procedure protocols for upper and lower extremity radiographic procedures. Portable imaging and contrast related radiographic procedures are also discussed. Students will demonstrate upper and lower extremity procedures in the clinical setting. (Prerequisites: RADT 140, RADT 141 and RADT 142; Corequisites: RADT 145 and RADT 146)
- ▲ **RADT-148 Clinical Practicum I; 2 credits**  
In this practicum, the student is placed in the clinical setting to demonstrate performance of contrast enhanced imaging procedures, including genitourinary procedures, gastrointestinal procedures and gall bladder procedures. (Prerequisites: RADT 140, RADT 141, RADT 142, RADT 145, RADT 146 and RADT 147)
- ▲ **RADT-240 Radiologic Physics; 2 credits**  
This course covers basic physics terminology, atomic structure, structure of matter, electrostatics, electrodynamics, magnetism, electromagnetism, transformers, rectification and x-ray circuitry. Emphasis is placed on acquiring an understanding of x-ray production. (Prerequisites: RADT 140, RADT 141, RADT 142, RADT 145, RADT 146, RADT 147 and RADT 148; Corequisites: RADT 241 and RADT 242)
- ▲ **RADT-241 Radiographic Exposure III; 2 credits**  
This course covers advanced imaging topics, including quality assurance and quality control testing, venipuncture and advanced contrast media administration, computer applications in imaging sciences and imaging modalities. Specific modalities discussed include digital imaging, angiographic and cardiac imaging, Cat Scan, Magnetic Resonance Imaging, nuclear medicine imaging, PET scanning, ultrasonography and radiation therapy. (Prerequisites: RADT 140, RADT 141, RADT 142, RADT 145, RADT 146, RADT 147 and RADT 148; Corequisites: RADT 240 and RADT 242)
- ▲ **RADT-242 Radiographic Procedures III; 5 credits**  
This course covers positioning terminology and anatomy and procedure protocols for spinal and thoracic cavity procedures. Students will demonstrate spinal and thoracic cavity procedures in the clinical setting. (Prerequisites: RADT 140, RADT 141, RADT 142, RADT 145, RADT 146, RADT 147 and RADT 148; Corequisites: RADT 240 and RADT 242)

**▲ RADT-245 Radiographic Pathology;**

**2 credits** This course covers terminology, etiology and disease processes of various pathological disorders, especially as it pertains to radiographic imaging. Traumatic injury, systemic classification of diseases and radiographic findings are also discussed, emphasizing the relationship between imaging modalities and the diagnosis of disease. (Prerequisites: RADT 140, RADT 141, RADT 142, RADT 145, RADT 146, RADT 147, RADT 148, RADT 240, RADT 241 and RADT 242; Corequisites: RADT 246 and RADT 247)

**▲ RADT-246 Issues in Health Care; 1 credit**

This course introduces students to current issues in health care and in Radiologic Technology. A wide range of topics are explored from a theoretical, ethical, social and economic point of view. Professional issues such as interviewing, upper division programs and radiologic technology organizations are also discussed. (Prerequisites: RADT 140, RADT 141, RADT 142, RADT 145, RADT 146, RADT 147, RADT 148, RADT 240, RADT 241 and RADT 242; Corequisites: RADT 245, and RADT 247)

**▲ RADT-247 Radiographic Procedures IV;**

**5 credits** This course covers positioning terminology and anatomy and procedure protocols for the skull and related anatomy. Special imaging procedures, such as mammography, operating room, angiographic and female imaging procedures are also discussed. Students will demonstrate skull and related procedures and special imaging procedures in the clinical setting. (Prerequisites: RADT 140, RADT 141, RADT 142, RADT 145, RADT 146, RADT 147, RADT 148, RADT 240, RADT 241 and RADT 242; Corequisites: RADT 245 and RADT 246)

**▲ RADT-248 Clinical Practicum II; 2 credits**

In this practicum, the student is placed in the clinical setting to demonstrate performance of all radiographic procedures learned in prior semesters. (Prerequisites: RADT 140, RADT 141, RADT 142, RADT 145, RADT 146, RADT 147, RADT 148, RADT 240, RADT 241, RADT 242, RADT 245, RADT 246 and RADT 247)

**▲ RADT-295 Special Project – Radiologic Technology; 1 to 6 credits**

The student will prepare an individualized plan of study in behavioral terms. The student and the instructor will complete a contract which will include a set of objectives, methods of achievement and a plan for evaluation.

The instructor will serve as a preceptor and consultant in guiding the student through the theoretical and laboratory components of the study plan.

## Reading

**READ-081 Transition to College; 3 credits**

READ 081 is a support course for students with learning disabilities offered only in the summer, which will prepare students for the transition to college. College survival skills will be introduced, e.g., communication skills, college vocabulary, reading and writing, time management, setting priorities, taking responsibility for academic tasks and active studying. Students will be introduced to college support systems and will be assisted in their program planning. Students will be introduced to other departments on campus.

**READ-084 Academic Skills Workshop I;**

**4 credits** READ 084 is the first in a series of four-credit courses for students enrolling in a Learning Disabilities course at Brookdale. This class introduces students to reading and study techniques needed for survival in college courses. In addition, students will attend a scheduled lab hour each week to review and complete reading assignments due the following class. Individual tutoring is part of the course. Students meet with a professional tutor for a scheduled hour each week; here, strategies taught in class are applied to other college courses. Developmental courses will not be counted to meet degree requirements.

**READ-085 Academic Skills Workshop II;**

**4 credits** This course is for students with learning disabilities. This class focuses on language, spelling, vocabulary and thinking skills in addition to expanding communication skills. In addition to three hours of class, students will attend a scheduled lab hour each week to review and complete reading assignments due the following class. Individual tutoring is part of the course. Students meet with a trained professional tutor for a scheduled hour each week; here, strategies taught in class are applied to other college courses. Developmental courses will not be counted to meet degree requirements. (Prerequisite: READ 084)

**READ-086 Academic Skills Workshop III;**

**4 credits** This is a course for students with learning disabilities. This class helps students develop strategies to manage content-area

course work. In addition to three hours of class, students will attend a scheduled lab hour each week to review and complete reading assignments due the following class. Individual tutoring is part of the course. Students meet with a trained professional tutor for a scheduled hour each week; here, strategies taught in class are applied to other college courses. Developmental courses will not be counted to meet degree requirements. (Prerequisite: READ 084)

**READ-087 Academic Skills Workshop IV: Individual Tutoring; 4 credits**

This course is designed for upper level students who need only individual tutoring and monitoring by the learning disabilities specialist. This is a college support course and will not be counted to meet the requirements for a degree. (Prerequisite: READ 084 or appropriate reading courses plus written permission from the Learning Disabilities Specialist)

**READ-088 Academic Skills Workshop V: Word Processing; 4 credits**

This course introduces students to computer techniques needed for survival in college courses. In addition, students will attend a scheduled lab hour each week. Individual tutoring is part of the course. Students meet with a professional tutor for a scheduled hour each week; here, strategies taught in class are applied to other college courses. Developmental courses will not be counted to meet degree requirements. (Prerequisite: READ 084)

**READ-091 Introduction to College**

**Reading I; 4 credits** This initial basic skills reading course introduces students to college reading comprehension and vocabulary enhancement skills. The application of skills is required each week in a scheduled Reading Lab. Upon completing READ 091, students are required to register for READ 092 to complete their basic skills college reading requirement. Developmental courses will not be counted to meet degree requirements.

**READ-092 Introduction to College**

**Reading II; 4 credits** This second half of a two semester sequence made up of READ 091 and READ 092 focuses on expanding comprehension and vocabulary skills developed in READ 091, and on developing flexibility of reading rate and critical reading strategies. Students will also develop textbook read/study strategies designed to help them become more effective college level readers. The application of skills is required each week in a scheduled reading lab.

Upon successfully completing the READ 091/092 sequence, students will satisfy their basic skills requirement in reading. Developmental courses will not be counted to meet degree requirements. (Prerequisite: READ 091)

**READ-095 Reading Analysis/ Study Skills; 4 credits** This course is designed to help students improve their reading skills and study strategies to effectively handle the demands of college courses. The students will learn to analyze text and apply appropriate study/learning strategies. By successfully completing READ 095, students will satisfy their basic skills requirement for reading. This developmental course will not be counted toward degree requirements.

- ▲ **READ-105 College Reading Strategies; 3 credits** This course is designed to help students achieve success with their college reading requirements. It focuses on helping students become active critical readers through the development of analytical reading skills and problem-solving strategies. Students will learn to apply effective reading strategies to studying, test taking and reading for research. (Prerequisites: Completion of READ 091 and READ 092 sequence or READ 095 or passing score in reading on Basic Skills Test)

## Respiratory Therapy

- ▲ **RESP-105 Introduction to Health Science; 2 credits** This pre-health course introduces the student to topics important to Associate Degree graduates of the healthcare professions. Emphasis will be placed on problem solving, critical thinking and application of concepts essential to the role of the healthcare professional. Communication skills and basic physical assessment techniques will be discussed. Health, professional and wellness topics will be integrated throughout the course, as well as medical terminology.
- ▲ **RESP-161 Cardiopulmonary Anatomy and Physiology; 3 credits** This course is designed for students who have gained admission in the Respiratory Therapy Program. It is one of two respiratory courses offered in the first semester. The student will utilize the principles and methods of scientific inquiry in exploring the structure and function of the respiratory system. The theory and application of sciences basic to respiratory therapy, as well as major

concepts and mechanisms associated with respiratory physiology, will be mastered. Students will use critical thinking and problem-solving skills in analyzing anatomic and physiologic principles applied to common clinical situations. Students will use appropriate mathematical concepts and operations to interpret data applied to static and dynamic characteristics of the lungs and vascular systems, oxygen and carbon dioxide transport, acid-base balance, ventilation-perfusion relationships, as well as regulation and control of respiration. (Prerequisite: Admission to the program; Corequisites: RESP 162, BIOL 111 and COMP 129)

- ▲ **RESP-162 Fundamental Skills in Respiratory Care; 6 credits** This course is designed for students who have gained admission into the Respiratory Therapy Program. It is the first course to include a college and clinical laboratory experience. It is designed to provide the student with the following competencies: critical thinking and problem-solving, communication, scientific perspective, and information and technology literacy through discussion and application of basic respiratory case modalities. Specifically, the student will master the theory and clinical application of patient assessment, humidity and aerosol therapy, pharmacology, oxygen therapy, intermittent positive pressure and techniques of bronchial clearance. The student will also comprehend the principles of infection control through cleaning, disinfection and sterilization procedures and demonstrate techniques of transmission prevention. College laboratory will provide training and practice of competency skills to be further mastered in the clinical laboratory. Students will practice in the clinical laboratory under supervision. Students should be aware that practice in the college and clinical laboratory may expose them to certain hazardous or infectious agents. A complete orientation including in-service with required manual will be provided to ensure student safety. (Prerequisite: Admission to the program; Corequisites: RESP 161, BIOL 111 and COMP 129)
- ▲ **RESP-163 Cardiopulmonary Pathophysiology; 4 credits** This course provides the basis for therapeutic management by introducing the Respiratory Therapy student to the structural and functional abnormalities leading to dysfunction of the cardiopulmonary system. Using the problem solving approach, the student will apply learned knowledge of cardiopulmonary

disease and diagnostics to clinical case scenarios. In addition, extra-pulmonary conditions that can result in respiratory impairment will be discussed. (Prerequisites: RESP 161 and RESP 162; Corequisites: RESP 164, Communications course and BIOL 112)

- ▲ **RESP-164 Patient Assessment and Diagnostics; 5 credits** This course provides the Respiratory Therapy student with supervised clinical application of principles and techniques of cardiopulmonary assessment and diagnostic procedures learned in the classroom and college laboratory. Topics include laboratory studies, electrocardiographs, pulmonary function studies, invasive and non-invasive blood gas monitoring, sleep studies and radiographic interpretation. Invasive and non-invasive techniques of airway clearance and sampling will provide a basis for airway management introduced in the second year. Students should be aware that practice in the college laboratory may expose them to certain hazardous or infectious agents. Laboratory orientation is provided to ensure student safety. (Prerequisites: RESP 161 and RESP 162; Corequisites: RESP 163 and BIOL 112)
- ▲ **RESP-261 Neonatal & Pediatric Respiratory Care; 2 credits** This second level course discusses the theory and principles of respiratory therapy as applied to infants and children in the acute and subacute care settings. Topics include development of the pulmonary system, diseases and disorders, respiratory management including PALS and NALS protocols and special considerations in the management of these patients. Students will clinically observe this area of specialized care at various facilities. (Prerequisites: RESP 163 and RESP 164; Corequisites: RESP 262, BIOL 213, Humanities and Elective)
- ▲ **RESP-262 Adult Critical Care; 7 credits** This second level Respiratory Therapy course will allow the student to master the principles of adult intensive care. Topics include the institution, maintenance, monitoring and withdrawal of mechanical ventilation, airway management and principles of hemodynamic monitoring. The selection and maintenance of ventilators and other equipment used in the critical care unit will be discussed in the classroom, practiced in the college lab and implemented under supervision in the clinical laboratory. Students should be aware that laboratory practice may expose them to certain hazardous or infectious agents. Orientation is provided to ensure

student safety. (Prerequisites: RESP 163 and RESP 164; Corequisites: RESP 261, BIOL 213, Humanities and Elective)

- ▲ **RESP-263 Subacute Respiratory Care; 2 credits** This second level course is designed to prepare the Respiratory student to work in alternative care settings including physician group practices, skilled nursing facilities, rehabilitation centers and home care agencies. Classroom discussions will include concepts of pulmonary rehabilitation, exercise testing, practices and principles of respiratory care in the home, discharge planning, reimbursement issues, patient education and providing respiratory therapy at skilled nursing facilities. Students will have an opportunity to clinically observe the role of the respiratory care practitioner at various agencies during the semester. (Prerequisites: RESP 261 and RESP 262; Corequisites: RESP 264, RESP 265, Communications and Social Studies course)

- ▲ **RESP-264 Respiratory Care Practice; 6 credits** This final course in the Respiratory Therapy Program provides the student with the opportunity to master clinical competency in preparation for entry into the field of Respiratory Care. Students will design and implement patient care plans under supervision in all areas of clinical practice. Students will assume responsibilities of decision-making and independent action by exhibiting self-initiative and managing and prioritizing care for groups of patients. Classroom topics include preparation for the credentialing examinations and discussion of leadership skills and management styles. Students will demonstrate communication skills by researching, preparing and presenting a case study. Students should be aware of potential exposure to hazardous or infectious agents while in the clinical setting. Orientation to clinical practice is provided to ensure student safety. (Prerequisites: RESP 261 and RESP 262; Corequisites: RESP 263, RESP 265, Communications and Social Sciences course)

- ▲ **RESP-265 Issues and Trends in Healthcare; 2 credits** This second level course provides a forum for the respiratory therapy student to discuss current issues in respiratory care. A wide range of topics are discussed from philosophical, theoretical, ethical, social, economic, historical, research and professional points of view. Students will learn to analyze issues, describe influencing factors, propose resolutions and strategies and make future projections and evaluate the impact on respiratory care.

(Prerequisites: RESP 261 and RESP 262; Corequisites: RESP 263, RESP 264, Communications and Social Sciences course)

- ▲ **RESP-295 Special Project – Respiratory Therapy; 4 credits** The student will prepare an individualized plan of study in behavioral terms. The student and the instructor will complete a contract which will include a set of objectives, methods of achievement and a plan for evaluation. The instructor will serve as a preceptor and consultant in guiding the student through the theoretical and laboratory components of the study plan.

## Russian

- **RUSS-101 (HU) Elementary Russian Communication I; 4 credits** This course is designed for students with no previous knowledge, or very limited knowledge, of the Russian language. Strong emphasis will be placed on acquiring conversational and comprehension skills, using practical and interesting situational materials that will stress both language and culture. Grammatical patterns and syntax will be stressed with the aim that students read and write what they have learned to say and understand.
- **RUSS-102 (HU) Elementary Russian Communication II; 4 credits** Students will build upon skills acquired in the first semester course and will be able to express themselves in a variety of more complex situations in Russian. (Prerequisite: A grade of "C" or higher in RUSS 101)

## Sociology

- **SOCI-101 (SS) Principles of Sociology; 3 credits** Sociology is a new look at the familiar world of everyday life. In this introductory course students will use the sociological perspective to analyze and understand their relationships to the various groups and social categories that constitute modern society. They will investigate the major concepts of deviance, social class and inequity, as well family-related issues including those of gender and aging. (Prerequisite: READ 095 or passing score in reading on the Basic Skills Test)
- **SOCI-105 (SS) (d) Intercultural Communication: The Person and The Process; 3 credits** Students will develop a personal and theoretical understanding of

the cultural origin of various people's values, ideologies, habit and idiosyncrasies, and how they effect communication across cultural, racial, ethnic and gender lines. Through observing, simulating and experiencing incidents of cross-cultural communication, they will begin to examine and develop skills that are necessary for effective understanding and for successful intercultural communication among majority and minority groups.

- **SOCI-202 (SS) Analysis of Social Problems; 3 credits** Students apply the sociological perspective to understand the controversial social issues of the 20th century: crime, drug abuse and poverty. They will investigate social disorganization and deviant behavior and explore possibilities for solutions to these problems. (Prerequisite: A grade of "C" or higher in SOCI 101)
- **SOCI-215 (SS) Marriage and the Family; 3 credits** Students develop a sociological understanding of marriage and the family as a social institution. Emphasis will be placed on the structure and relationships of the contemporary family, as well as the problem areas encountered and the ways in which our society deals with these problems. (Prerequisites: READ 095 or passing score in reading on Basic Skills Test; SOCI 101 strongly recommended)
- **SOCI-216 (SS) (CG) Sociology In Minorities; 3 credits** This course examines the inter-relationship between race, class, gender and ethnicity and how these structures have shaped the experiences of all people in America. A sociological and historical perspective is applied to analyze how a social configuration characterized by cultural diversity affects the individual consciousness, group interaction and group access to institutional power and privileges. SOCI 101 is recommended, but not required.
- **SOCI-226 (SS) Drugs and American Society; 3 credits** Drug abuse has been declared our number one domestic social problem. This course applies methods and concepts of sociological analysis to the investigation of the complex social, cultural and historical forces which have shaped drug use in American society. Drug use in American culture is examined in the larger framework of international, political and economic processes.

- **SOCI-235 (SS) Sociology of Sport; 3 credits** This course examines the functions of sport as an emergent social institution in contemporary society. Focusing primarily, but not exclusively upon the U.S., students will apply a sociological perspective to analyze the impact of sports upon culture, socialization, and social deviance. The course will examine the intersection of organized sports with major social institutions like family, education, the mass media, and the economy. There will be an emphasis upon the manifold connections between sport, race, class, and gender. (Prerequisites: ENGL 095 or passing score in English on Basic Skills Test. Prerequisite or corequisite: SOCI 101 is strongly recommended.)

- ▲ **SOCI-295 Special Project - Sociology; 1 to 6 credits** (Prerequisite: Six credits in Sociology or approval from the instructor)

## Social Sciences

- ▲ **SOSC-299 Social Sciences Internship; 3 credits** Students seeking an internship in the general areas of Social Sciences will select from a variety of internships which are interdisciplinary in nature (including two or more of the Social Sciences). These experiences would NOT be clearly developed under a single area of Social Sciences.

## Spanish

- **SPAN-101 (HU) Elementary Spanish Communication I; 4 credits** This course is designed for students with no previous knowledge, or very limited knowledge, of the Spanish language. Strong emphasis will be placed on acquiring conversational and comprehension skills, using practical and interesting situational materials that will stress both language and culture. Grammatical patterns and syntax will be introduced with the aim that students read and write what they have learned to say and understand. (This course is not open to native Spanish speakers or to students with more than two years of Spanish in high school, except by instructor approval)
- **SPAN-102 (HU) Elementary Spanish Communication II; 4 credits** Students will build upon skills acquired in the first semester course and will be able to express themselves in a variety of more complex situations in Spanish. (Prerequisite: A "C" or higher in SPAN 101 or instructor approval)
- **SPAN-203 (HU) Intermediate Spanish Communication I; 3 credits** Students will improve their speaking, listening, reading and writing skills, demonstrating the ability to report on various aspects of Spanish and Latin American life and culture using more complex language patterns. (Prerequisite: A grade of "C" or higher in SPAN 102 or instructor approval)
- **SPAN-204 (HU) Intermediate Spanish Communication II; 3 credits** Students will demonstrate the ability to speak, read and write Spanish and to discuss and evaluate Spanish and Latin American culture, customs and current events. They will also interact with native speakers of the language. (Prerequisite: A grade of "C" or higher in SPAN 203 or instructor approval)
- **SPAN-207 (HU) Spanish Conversation and Composition; 3 credits** This course is designed for students who have completed four semesters or more of College Spanish and/or already possess the ability to interact with native speakers and read and write the language. Emphasis will be on improving conversational skills; discussions will bring increasingly complex grammar and vocabulary into active use. (Prerequisite: A grade of "C" or higher in SPAN 204 or instructor's approval)
- **SPAN-215 (HU) Contemporary Latin American Literature; 3 credits** The student will read Latin American poetry, essays, short stories, and plays of the 20th century in Spanish. Discussions will be conducted in Spanish. (Prerequisite: A grade of "C" or higher in SPAN 204 or instructor's approval)
- **SPAN-216 (HU) Spanish for Native and Near-Native Speakers; 3 credits** The student will demonstrate the ability to use the Spanish language correctly in writing, as well as orally, and to relate it to present issues. Upon completion of the course, the student will have acquired basic writing skills and knowledge of the Spanish grammatical structure. Specific writing needs will be met by individualized instruction and in laboratory hours. (Prerequisite: Native speaking ability or approval of instructor or a grade of "C" or higher in SPAN 207 or SPAN 215)

## Speech

- **SPCH-106 (C) Introduction to Oral Language Skills; 3 credits** The student will demonstrate an ability to express herself/himself effectively in academic, business and social situations. The focus will be on speaking in informal situations, small group discussions and job interview techniques.
- **SPCH-115 (C) Effective Speech; 3 credits** Students will develop the speech communication skills central to success in academic, business and professional life. Students who complete SPCH 115 will have demonstrated competence in critical thinking, effective listening, information and technological literacy, appropriate to use of communication in public speaking and group discussion.
- **SPCH-116 (C) Business Speech; 3 credits** This basic public speaking course is an alternative to SPCH 115, and provides experiences in those speaking skills necessary in the business professions, conferencing, briefing and the selling of products and ideas.
- **SPCH-125 (C) Oral Interpretation; 3 credits** This course is designed to improve students' reading skill in reading aloud, by stressing both analysis of material and development of vocal skills. Materials include prose, poetry, drama and non-fiction.
- **SPCH-126 (C) Small Group Discussion; 3 credits** The student will learn to lead, set up and participate in a variety of group discussions. Emphasis will be placed on practical application of discussion group techniques.
- **SPCH-127 (C) Voice and Diction; 3 credits** The student will be able to improve the strength and resonance of the vocal mechanism, and produce the sounds and stress patterns of American English. Particular stress will be placed on reading from the printed page for the logical as well as the emotional content. This course is not designed for speech correction or foreign accent elimination.
- **SPCH-130 (C) Interpersonal Communications; 3 credits** This course will introduce students to the study of interpersonal communication. Students will be provided with an opportunity to improve their theoretical understanding and practical application of interpersonal skills. Specific focus on dyadic communication

relationships will include aspects of initiation, maintenance and closure within situation specific contexts. An oral skill building approach to this course and its material will require that students participate in class activities that emphasize effective listening and speaking. Additionally written assignments and/or tests accompany each unit. (Prerequisite: READ 095 or passing score in reading on Basic Skills Test)

▲ **SPCH-226 Speech Practicum;**

**1 to 3 credits** Students will select one or more areas (public speaking, forensics, speech for the non-native speaker or oral language skills) in which to work. In consultation with the instructor, they will set their own objectives and will be evaluated on the achievement of those objectives. The practicum is designed to meet the individual needs of the students beyond the capabilities of other speech courses. (Prerequisite: SPCH 115 or SPCH 116 and/or instructor approval)

■ **SPCH-215 (C) Argumentation and Debate;**

**3 credits** Students will sharpen their critical thinking skills through their participation in structured argument and debate. Through several debate formats students will learn how to research in support of an argument, compose sound and logical arguments, and present those arguments orally. (Prerequisites: ENGL 097 (or passing score in English on Basic Skills Test) and SPCH 115 or permission of instructor)

▲ **SPCH-295 Special Project – Speech;**

**1 to 6 credits** (Prerequisite: Approval of instructor)

## Television

▲ **TELV-115 TV: Aesthetics and Analysis;**

**3 credits** This course is based on the assumption that television, our most pervasive medium, deserves critical examination. Students will explore the nature of the medium and analyze both content and design of current programming.

▲ **TELV-121 Television Production; 3 credits**

The student will demonstrate an understanding of basic television production techniques including the use of the camera, console and audio board and the preparation of scripts by producing and directing studio programs.

▲ **TELV-122 Digital Video Production;**

**3 credits** Digital video production deals

with video field production in the digital domain. The student will plan, shoot and edit videotaped projects in the documentary or informational format. Use of digital video production and editing techniques will be emphasized. (Prerequisite: TELV 121 with minimum grade of "C" or DGMD 101)

▲ **TELV-224 Video Editing and Post**

**Production; 3 credits** This course will focus on advanced principles of professional video editing. Students will learn to operate and effectively use the principal components of a contemporary computer-based editing system. The course content will focus on aesthetic principles of visual continuity as well as technical considerations. (Prerequisite: TELV 121 and TELV 122 with minimum grade of "C")

▲ **TELV-295 Special Project – Television;**

**1 to 6 credits** Students will design a project of advanced study. Students must have completed previous course work in the subject area and must meet with an appropriate instructor before registration. (Prerequisites: TELV 121, TELV 122 and TELV 224)

▲ **TELV-299 Television Internship;**

**1 to 6 credits** Students will practice television production and organizational skills in a real world experience. They will work with an experienced practitioner who will guide and supervise their progress. Such an internship may be in television services at Brookdale's cable television system or in television facilities in education, business or industry. (Prerequisites: TELV 121, TELV 122, TELV 224 and approval of instructor and Career Services Representative)

## Theater

● **THTR-105 (HU) Theater Appreciation;**

**3 credits** This course is an introduction to the elements of theater, the current Broadway scene, theatrical reviewing, the form and content of drama and theater history. In addition to lecture and films, the students will be required to see a Broadway or off-Broadway show. This is not a performance course.

■ **THTR-111 (HU) Acting I; 3 credits**

Acting I is an introductory course. Students learn to act by participating in a variety of theater games, exercises and improvisations culminating with a basic scene presentation. The student will perform in solo and group improvisations. The student will learn how

the actor's words and body communicate a full range of ideas and emotions. The student will demonstrate the ability to explore all the concepts covered in the class and apply those concepts by memorizing, rehearsing and performing in a comedic or dramatic scene three to five minutes in length.

■ **THTR-112 (HU) Acting II; 3 credits**

The class is the next step in the acting sequence. The focus of the class is intensive character development and scene study. The students will start to explore in depth the concepts of character development, intentions, actions/objective, super objective, text, subtext, operative words, physicalization, personalization, articulation, diction, and projection. These theories are applied through the presentation of two scenes. (Prerequisite: THTR 111 or permission of instructor)

■ **THTR-121 (HU) Basic Directing;**

**3 credits** In this course, the student will learn the fundamentals of directing a play. The student will learn how to analyze a script, develop a production concept, and conduct rehearsals. The student will learn about all the elements that a director must consider in order to understand and completely communicate the super objective of the play: script analysis, casting, conducting rehearsals, the schedule, time management, communication with actors, resolving problems, picturization, conceptualizing and communicating concepts with the design and technical staff. All directors are required to observe rehearsals during and outside of class time and to see both Brookdale productions. All directors are required to observe and participate in Basic Acting class. (Prerequisite: THTR 111 is highly recommended)

● **THTR-135 (HU) Musical Theater; 3 credits**

The history of the American Musical Theater will be studied in depth, beginning with the imported Operetta and English Music Hall tradition and ending with current trends in the theater. Students will be presented with a thorough discussion of Vaudeville, Minstrel Shows, Musical Comedy and Musical Theater with an emphasis on the most important shows, performers, composers/lyricists, directors, choreographers and other theater professionals. There will also be a discussion of the impact of major social events upon the creative community, including the two World Wars, the General Depression (including the WPA) and the social upheaval of the 1960's.

■ **THTR-145 (HU) Technical Theater I; 3 credits** The student will be introduced to theater terminology, stage carpentry techniques, scene painting, stage lighting, and rigging for the stage, including proper operation of the arbor weight system and common knots used in theatrical rigging. The student will apply the concepts learned in class in a Theater Department show.

▲ **THTR-146 Technical Theater II; 3 credits** This course deals with advanced technical theory and practical application. The course will cover electricity and electrical theory at the atomic level up to its practical application in the theater. Stage lighting basics, lighting history, lighting instruments, lighting control, and maintenance and operation of lighting systems will be taught. Principles of theatrical sound and techniques for patching and operating the sound systems will be covered. (Prerequisite: THTR 145 or permission of the instructor)

■ **THTR-213 (HU) Acting III; 3 credits** This course is designed to introduce the student to acting in the classical style. This course will focus on applying the basic and advanced principles of character development and scene study for rehearsal and presentation of a classical monologue and scene. This course will concentrate on learning body, voice, and speech awareness and control, along with character and script analysis. The student will learn to channel his/her spontaneity into a style with requirements that are more stringent than those in realistic plays. (Prerequisite: THTR 112 or permission of instructor)

▲ **THTR-222 Acting IV: Auditioning; 3 credits** The focus of this course is the intensive study in Classical and Modern monologues styles and cold readings. The course prepares the student for the business facet of acting, focusing on resumes, auditions, four-year college programs B.A., B.F.A., Conservatory, casting agents/directors and the process of getting work. This class is for the actor who wants to gain an understanding of the specific knowledge necessary for establishing and applying their training. (Prerequisite: THTR 213 or permission of the instructor)

▲ **THTR-295 Special Project – Theater; 1 to 6 credits** The student, with the instructor, will design a special theatrical project in acting, directing or technical work. The student will demonstrate skills relative to the specific project.

▲ **THTR-299 Theater Internship; 1 to 6 credits** Students will apply theatrical skills in a practical, hands-on environment. They will work with an experienced practitioner who will guide and supervise their progress. Internships may be in the technical crafts, in an acting program or in the management areas. Internships may be arranged by a faculty director or developed by the student with approval of a theater faculty member and Career Services Representative.

## Travel and Tourism

▲ **TRVL-102 Computerized Reservations; 3 credits** Students will prepare for travel agency or airline employment by receiving training on a computer with a simulated reservation system.

## Women's Studies

■ **ENGL-128 (C) (CG); Writing From the Female Experience; 3 credits** This women's writing workshop focuses on topics relevant to the female experience. Through their own writing and study of women's autobiographical works, participants will explore the uniqueness and universality inherent in their own and other women's lives. Readings include excerpts from diaries, journals, letters and essays. Students will select one longer autobiography for in-depth analysis and research. Written work required includes weekly journal writing, formal and informal papers and a research report. (Prerequisite: ENGL 095 or passing score in English on Basic Skills Test)

■ **ENGL-175 (HU) (CG) Woman As Author; 3 credits** Students will learn about the contribution of women to the world of literature. They will understand and identify recurrent themes and images in women's writing. Students will apply their understanding by analyzing the selections read during the semester.

■ **HIST-125(HU) (CG) Women's History Survey: Experiences, Contributions and Debates; 3 credits** A survey of the experiences, lives and contribution of women to American history. The student will study women's changing roles through history, as well as the diversity of women's experience on a racial, ethnic and class basis. Problems and solutions women have faced

in the past will be discussed with an emphasis on understanding the participation of women in America, to uncover and restore women's achievements and experiences.

■ **HUMN-129 (HU) (CG) Issues in Women's Studies; 3 credits** This course provides an exploration of the field of women's studies and includes an analysis of women's lives through readings in a wide range of topics from the new scholarship on gender. Students will be requested to write response papers as well as to read from a variety of texts. Research writing will also be included. Guest speakers will contribute a variety of perspectives from different areas of women's experiences.

■ **HUMN-230 (HU) (CG); Woman and Science; 3 credits** This course provides an interdisciplinary examination of women's relationship to the natural sciences, mathematics and technology. The social construction of gender and race will be examined along with a feminist critique of science. The history of women in science and the experiences of contemporary women scientists will be included along with the impact of science and technology on women's lives. Course materials include case studies and autobiographical narratives, films, as well as theory and sociological analysis. (Prerequisite: ENGL 121)