

Many of the course descriptions include the semester in which classes will be offered; however, they may change without notice. Please consult the current class schedule for the complete listing of courses.

Course Numbers

Courses numbered 01 through 09 are courses for developmental studies. The credits earned in these courses are not applicable toward associate degree programs; however, upon approval by the Vice-President of Academic Services, some developmental courses may provide credit applicable to basic occupational diplomas or certificate programs. Courses numbered 10 through 99 are freshman courses for certificate programs.

The credits earned in these courses are applicable toward certificate programs but are not applicable toward an associate degree. Courses numbered 100 through 199 are freshman courses applicable toward associate degrees and certificate programs. Courses numbered 200 through 299 are sophomore courses applicable toward associate degrees and certificate programs.

Not all courses are applicable to all programs. If a course is not listed under a particular curriculum, students should consult their advisor or counselor to determine if it will count for degree credit. In general, a course may be taken for credit only two times.

Course Hours

The number of lecture hours in class each week (including lecture, seminar and discussion hours) and/or the number of laboratory hours in class each week (including laboratory, shop, supervised practice, and cooperative work experiences) is indicated for each course in the course description. Lecture and laboratory hours in class each week are also called "contact" hours because they represent time spent under the supervision of a faculty member. In addition to the contact hours as listed in the course description, students also must spend time on out-of-class assignments under their own direction. Usually each credit per course requires an average of three hours of out-of-class study each week.



Course Prerequisites/Co-requisites

A prerequisite course serves to promote student success in the related course. When prerequisites are required before enrolling in a course, the prerequisites are identified in the course description. Courses in sequence (identified by the numerals III) usually require the prior course or equivalent be completed before enrolling in the advanced course in the sequence. Exceptions can be made only upon the recommendation of the faculty member and approval by the Dean of Instruction. When co-requisites are required for a course, usually the co-requisites must be taken at the same time. The prerequisites or their equivalent must be completed satisfactorily before enrolling in a course unless special permission is obtained from the Vice-President of Academic Services.

Repeating a Course

A student is limited to two enrollments in the same credit course. Should a student need to enroll in the same credit course more than twice, the need must be properly documented on the current semester Registration Form or on the Registration Change Form and include the Dean of Instruction's signature.

Note: Not all courses are offered every semester. Consult the class schedule for courses being offered during a particular semester.

ACCOUNTING

ACC 211: Principles of Accounting I (3 cr.) — Presents accounting principles and their application to various businesses. Covers the accounting cycle, income determination, and financial reporting. Prerequisite: MTH 02 or placement recommendation for MTH 03. Completion of MTH 03 recommended. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

ACC 212: Principles of Accounting II (4 cr.) — Continues Principles of Accounting 211; emphasizes partnerships, corporations and the study of financial analysis. Includes and introduces cost and managerial accounting concepts. Prerequisite: ACC 211. Lecture 4 hours. Total 4 hours per week. Approved transfer elective. Offered every semester.

ACC 215: Computerized Accounting (3 cr.) — Introduces the computer in solving accounting problems. Focuses on operation of computers. Presents the accounting cycle and financial statement preparation in a computerized system and other applications for financial and managerial accounting. Prerequisite or co-requisite: ACC 211 or equivalent. Lecture 3-4 hours per week. Offered every spring semester.

ADMINISTRATION OF JUSTICE

ADJ 100: Survey of Criminal Justice (3 cr.) — Presents an overview of the United States criminal justice system; introduces the major system components—law enforcement, judiciary and corrections. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

ADJ 105: The Juvenile Justice System (3 cr.) — Presents the evolution, philosophy, structures and processes of the American juvenile delinquency system; surveys the rights of juveniles, dispositional alternatives, rehabilitation methods and current trends. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

ADJ 110: Introduction to Law Enforcement (3 cr.) — Studies the philosophy and history of law enforcement, presenting an overview of the crime problem and policy response issues. Surveys the jurisdictions and organizations of local, state, and federal law enforcement agencies. Examines qualification requirements and career opportunities in the law enforcement profession. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

ADJ 111: Law Enforcement Organization and Administration I (3 cr.) — Teaches the principles of organization and administration of law enforcement agencies. Studies the management of line operations, staff and auxiliary services, investigative and juvenile units. Introduces the concept of data processing; examines policies, procedures, rules, and regulations pertaining to crime prevention. Surveys concepts of protection of life and property, detection of offenses, and apprehension of offenders. Prerequisite for ADJ 111 is ADJ 110. Lecture 3 hours per week. ADJ 111 offered every other fall semester.

ADJ 116: Special Enforcement Topics (3 cr.) — Considers contemporary issues, problems, and controversies in modern law enforcement. Lecture 3 hours per week. Offered every fall semester.

ADJ 133: Ethics and the Criminal Justice Professional (3 cr.) — Examines ethical dilemmas pertaining to the criminal justice system, including those in policing, courts and corrections. Focuses on some of the specific ethical choices that must be made by the criminal justice professional. Lecture 3 hours per week. Offered every spring semester.

ADJ 140: Introduction to Corrections (3 cr.) — Focuses on societal responses to the offender. Traces the evolution of practices based on philosophies of retribution, deterrence, and rehabilitation. Reviews contemporary correctional activities and their relationships to other aspects of the criminal justice system. Lecture 3 hours per week.

ADJ 145: Corrections and the Community (3 cr.) — Studies and evaluates the relationships and interactions between correctional organizations and free society. Focuses on the shared responsibility of the community and corrections agencies to develop effective programs for management and treatment of criminal offenders. Lecture 3 hours per week.

ADJ 146: Adult Correctional Institutions (3 cr.) — Describes the structures, functions, and goals of state and federal correctional institutions (prisons, farms, community based units, etc.) for adult inmates. Lecture 3 hours per week.

ADJ 171-172: Forensic Science I-II (4 cr.) (4 cr.) — Introduces student to crime scene technology, procedures for sketching, diagramming and using casting materials. Surveys the concepts of forensic chemistry, fingerprint classification/ identification and

latent techniques, drug identification, hair and fiber evidence, death investigation techniques, thin-layer chromatographic methods, and arson materials examination. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

ADJ 201-202: Criminology (3 cr.) — Studies current and historical data pertaining to criminal and other deviant behavior. Examines theories that explain crime and criminal behavior in human society. Lecture 3 hours per week. Approved transfer electives.

ADJ 211-212: Criminal Law, Evidence and Procedures I-II (3 cr.) (3 cr.) — Teaches the elements of proof for major and common crimes and the legal classification of offenses. Studies the kinds, degrees and admissibility of evidence and its presentation in criminal proceedings with emphasis on legal guidelines for methods and techniques of evidence acquisition. Surveys the procedural requirements from arrest to final disposition in the various American court systems with focus on the Virginia jurisdiction. Prerequisite for ADJ 212 is ADJ 211. Lecture 3 hours per week. Approved transfer electives. ADJ 211 offered every fall semester. ADJ 212 offered every spring semester.

ADJ 225: Courts and the Administration of Justice (3 cr.) — Studies court systems with emphasis on the technical procedures required, from incident occurrence to final disposition of the case, noting the applicable principles of civil and criminal law; focuses on Virginia courts, laws, and procedures. Prerequisite ADJ 130 or divisional approval. Lecture 3 hours per week.

ADJ 229: Law Enforcement and the Community (3 cr.) — Considers current efforts by law enforcement personnel to achieve an effective working relationship with the community. Surveys and analyzes various interactive approaches of law enforcement agencies and the citizenry they serve. Lecture 3 hours per week.

ADJ 234: Terrorism and Counter-Terrorism (3 cr.) — Surveys the historical and current practices of terrorism that are national, transnational, or domestic in origin. Includes biological, chemical, nuclear, and cyber-terrorism. Teaches the identification and classification of terrorist organizations, violent political groups and issue-oriented militant movements. Examines investigative methods and procedures utilized in counter terrorist efforts domestically and internationally. Prerequisites: ADJ 100 and ADJ 107. Lecture 3 hours per week. Offered every spring semester.

ADJ 236: Principles of Criminal Investigation (3 cr.) — Surveys the fundamentals of criminal investigation procedures and techniques. Examines crime scene search, collecting, handling and preserving of evidence. Lecture 3 hours per week.

ADJ 247: Criminal Behavior (3 cr.) — Introduces and evaluates the concepts of normal and abnormal behavior. Focuses on the psychological and sociological aspects of criminal and other deviant behavior patterns. Lecture 3 hours per week.

ADJ 243: Homeland Security and Law (3 cr.) — Covers relationships abroad, the mission of federal, state, and local government at home, and the best way to provide for the common defense. Examines HLS and emergency management, FEMA's place in public policy, law, and management, HLS initiatives, and new

partnerships for HLS covering the government, private sector and higher education. Discusses civil rights issues, the USA Patriot Act; future challenges and roles of intelligence agencies; foreign policy aspects and views. Prerequisite: ADJ 111.

ARCHITECTURE

ARC 225 Site Planning and Technology (3 cr.) — Studies the impact of building codes and zoning ordinances on site design; storm drainage, grading design, erosion and flood control; site materials for paving and retaining walls; site utilities. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ART

ART 101-102: History and Appreciation of Art I-II (3 cr.) (3 cr.) — Presents the history and interpretation of architecture, sculpture, and painting. Begins with prehistoric art and follows the development of western civilization to the present. Lecture 3 hours per week. Recommended to be taken in sequence. Approved transfer electives. ART 101-offered every semester. ART 102-offered every semester.

ART 116: Design for the Web I (3 cr.) — Introduces the basic elements of web page design: typography, imagery, and color, and examines how they are combined to create effective layouts. Teaches organization of materials, sketching and concept development, site planning and various methods of construction. Lecture 3 hours per week. Offered every other fall.

ART 120: Beginning Drawing (2 cr.) — Introduces principles and practices of the various media used in drawing. Lecture 1 hour. Studio instruction 2 hours. Total 3 hours per week. Approved transfer elective. Offered every fall and spring semester.

ART 121-122: Drawing I-II (4 cr.) (4 cr.) — Develops basic drawing skills and understanding of visual language through studio instruction/lecture. Introduces concepts such as proportion, space, perspective, tone and composition as applied to still life, landscape and the figure. Uses drawing media such as pencil, charcoal, ink wash and color media. Includes field trips and gallery assignments as appropriate. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week. Approved transfer electives. ART 121 offered every semester. ART 122 offered every fall and spring semester.

ART 131-132: Fundamentals of Design I-II (4 cr.) (4 cr.) — Explores the concepts of two- and three-dimensional design and color. May include field trips as required. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week. Approved transfer electives. ART 131 offered every semester. ART 132 offered every spring semester.

ART 138: Figure Drawing (4 cr.) — Develops drawing skills for the beginning and experienced students. Explores a broad range of drawing problems dealing with the human figure in costume using various media and techniques. Prerequisite: ART 121 or permission of Instructor. Lecture 2 hours. Studio instruction 2-4 hours. Total 4-6 hours per week. Approved transfer elective. Offered every fall semester.

ART 141: Typography I- (4 cr.) — Studies the history of letter forms and typefaces and examines their uses in contemporary communications media. Emphasizes applications to specific design problems. Includes identification and specification of type, copy fitting and hands-on typesetting problems. Prerequisite ART 131 and ART 180 or divisional approval. Lecture 1-2 hours. Studio instruction 4 hours. Total 5-6 hours per week.

ART 153-154: Ceramics I-II (4 cr.) (4 cr.) — Presents problems in the design and production of functional and non-functional ceramic works. Includes handbuilding the potter's wheel and clays and glazes. Lecture 0-2 hours. Studio instruction 4-6 hours. Total 5-8 hours per week. ART 153 offered every fall and spring semester.

ART 175: Photography Workshop (4 cr.) — Introduces basic camera operations and darkroom techniques. Lecture 2 hours. Studio instruction 4 hours. Total 6 hours per week. ART 259: Landscape Painting (3 cr.) Provides a comprehensive study of the techniques and approaches to the subject of landscape painting from the historic and current prospective. Prerequisite: ART 122. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

ART 180: Introduction to Computer Graphics (3 cr.) — Provides a working introduction to computer-based electronic technology used by visual artists and designers. Presents the basics of operating platforms and standard industry software. Introduces problems in which students can explore creative potential of the new electronic media environment. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: ART 131. Offered every semester.

ART 238: Figure Drawing II (4 cr.) — Develops drawing skills for the beginning and experienced students. Explores a broad range of drawing problems dealing with the human figure in costume using various media and techniques. Prerequisite: ART 122 or divisional approval. Lecture 2 hours. Studio Instruction 2-4 hours. Total 4-6 hours per week.

ART 241-242: Painting I-II (4 cr.) (4 cr.) — Introduces abstract and representational painting in acrylic and/or oil with emphasis on color composition and value. Prerequisite: ART 122 and ART 131 or permission of instructor. Lecture 1- 2 hours. Studio instruction 4 hours. Total 5-6 hours per week. Must be taken in sequence. Approved transfer electives. ART 241 offered fall and spring semester. ART 242 offered very fall and spring semester.

ART 261: Illustration I (4 cr.) — Studies the methods and materials used in various types of book and magazine publishing. Prerequisite ART 122. Lecture 1-2 hours. Studio instruction 2-4 hours. Total 4-6 hours per week.

ART 265: Graphic Techniques (4 cr.) — Applies the study of printing processes to the preparation of art work. Teaches printing processes, terminology, and related materials. Prerequisite ART 131 AND art 180.. Lecture 2 hours. Studio instruction 4 hours. Total 6 hours per week. Please see an advisor for more information.

ART 275: Relief Printmaking (4 cr.) — Introduces relief print making techniques including woodcut, linocut, and collograph. Includes field trips when applicable. Prerequisites ART 131 and ART 140 or ART 180. Lecture 2 hours. Studio instruction 4 hours. Total 6 hours per week.

ART 283-284: Computer Graphics I-II (4 cr.) (4 cr.) — Utilizes microcomputers and software to produce computer graphics. Employs techniques learned to solve studio projects which reinforce instruction and are appropriate for portfolio use. Lecture 1-2 hours. Studio instruction 3-4 hours. Total 5-6 hours per week. Prerequisites: ART 131 and ART 180. Must be taken in sequence. ART 283 offered every fall semester. ART 284 offered every spring semester.

ART 287: Portfolio and Resume Preparation (1 cr.) — Focuses on portfolio preparation, resume writing, and job interviewing for students. Recommended for final semester program students. Requires instructor's approval. Lecture 1- 2 hours. Studio instruction 0-4 hours. Total 1-6 hours per week. Offered every spring semester.

AMERICAN SIGN LANGUAGE

ASL 101-102: American Sign Language I-II (3 cr.) (3 cr.) — Introduces the fundamentals of American Sign Language (ASL) used by the Deaf Community, including basic vocabulary, syntax, finger spelling, and grammatical non-manual signals. Focuses on communicative competence. Develops gestural skills as a foundation for ASL enhancement. Introduces cultural knowledge and increases understanding of the Deaf Community. Lecture 3 hours per week. Approved transfer electives.

ASL 125: History and Culture of the Deaf Community I (3 cr.) — Presents an overview of various aspects of Deaf Culture, including educational and legal issues. Lecture 3 hours per week.

ASL 201-202: American Sign Language III-IV (3 cr.) (3 cr.) — Develops vocabulary, conversational competence, and grammatical knowledge with a total immersion approach. Introduces increasingly complex grammatical aspects including those unique to ASL. Discusses culture and literature. Contact with the Deaf Community is encouraged to enhance linguistic and cultural knowledge. Prerequisite: ASL 102. Lecture 3 hours per week. Approved transfer elective.

AUTOMOTIVE

AUT 100: Introduction to Automotive Shop Practices (2 cr.) — Introduces shop practices for automotive laboratory and shop safety, identification and use of hand tools, general power equipment and maintenance of automotive shop. Explains basic operation procedures of standard shop equipment. Presents Occupational Safety and Health Act standards pertaining to the automotive field. Lecture 2-3 hours per week.

AUT 111-112: Automotive Engines I-II (4 cr.) — Presents analysis of power, cylinder condition, valves and bearings in the automotive engine to establish the present condition, repairs or adjustments. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

AUT 121-122: Automotive Fuel Systems I-II (4 cr.)(4 cr.) — Analyzes major domestic and foreign automotive fuel systems to include carburetors and fuel injection systems. Includes detailed inspection and discussion of fuel tanks, connecting lines, instruments, filters, fuel pumps, superchargers, and turbo charger. Also includes complete diagnosis, troubleshooting, overhaul and factory adjustment procedures of all major carbureted and fuel injection systems. Lecture 3 hours. Laboratory 0-3 hours. Total 3-6 hours per week

AUT 141-142: Auto Power Trains I-II (4 cr.) — Presents operation, design, construction and repair of power train components, standard and automatic transmission. Includes clutches, propeller shaft, universal joints, rear axle assemblies, fluid couplings, torque converters as well as 2, 3, and 4 speed standard, overdrive and automatic transmissions. Lecture 2-3 hours. Laboratory 2-6 hours. Total 4-8 hours per week.

AUT 236: Automotive Climate Control (4 cr.) — Introduces principles of refrigeration, air conditioning controls and adjustment and general servicing of automotive air conditioning systems. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

AUT 241-242: Automotive Electricity I-II (4 cr.) — Introduces electricity and magnetism, symbols and circuitry as applied to the alternators, regulators, starters, lighting systems, instruments and gauges and accessories. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

AUT 245: Automotive Electronics (4 cr.) — Introduces field of electronics as it applies to the modern automobile. Emphasizes basic circuit operation, diagnosis and repair of digital indicator and warning systems. Lecture 3 hours. Laboratory 0-3 hours. Total 3-6 hours per week.

AUT 266: Auto Alignment, Suspension and Steering (4 cr.) — Introduces use of alignment equipment in diagnosing, adjusting, and repairing front and rear suspensions. Deals with repair and servicing of power and standard steering systems. Lecture 1-2 hours. Laboratory 6 hours. Total 7-8 hours per week.

AUT 267: Automotive Suspension and Braking Systems (4 cr.) — Presents the operation, design, construction, repair and servicing of braking and suspension systems. Explains use of tools and test equipment, evaluation of test results, estimation and repair cost, front and rear suspension alignment, power and standard steering, and power, standard and disc brakes. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

BIOLOGY

BIO 101-102: General Biology I-II (4 cr.) (4 cr.) — Explores fundamental characteristics of living matter from the molecular level to the ecological community with emphasis on general biological principles. Introduces the diversity of living organisms, their structure, function and evolution. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week. Prerequisite MTH 02 or satisfactory score on an appropriate proficiency examination. Approved transfer electives. BIO 101-offered every semester. BIO 102-offered every semester.

BIO 205 General Microbiology (4 cr.) — Examines morphology, genetics, physiology, ecology, and control of microorganisms. Emphasizes application of microbiological techniques to selected fields. Prerequisites one year of college biology and one year of college chemistry or divisional approval. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week. Approved transfer elective.

BIO 231-232 Human Anatomy and Physiology I-II (4 cr.) (4 cr.) — Integrates the study of gross and microscopic anatomy With physiology, emphasizing the analysis and Interpretation of physiological data. Prerequisites one Year of college biology and one year of college Chemistry or divisional approval. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week. Approved transfer electives

BIO 256: General Genetics (4 cr.) — Explores the principles of genetics ranging from classical Mendelian inheritance to the most recent advances in the biochemical nature and function of the gene. Includes experimental design and statistical analysis. Prerequisite BIO 101-102 or equivalent. Approved transfer elective. Offered every fall semester.

BIO 275: Marine Ecology (4 cr.) — Applies ecosystem concepts to marine habitats. Includes laboratory and field work. Prerequisite BIO 101-102 or divisional approval. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week. Approved transfer elective.

BIO 285: Biological Problems in Contemporary Society (3 cr.) — Discusses major biological problems facing society which may include environmental and health concerns such as pollution, bioengineering, drug abuse, conservation, famine and others. Lecture 3 hours per week. Approved transfer elective.

BUSINESS MANAGEMENT AND ADMINISTRATION

BUS 100: Introduction to Business (3 cr.) — Presents a broad introduction to the functioning of business enterprise within the U.S. economic framework. Introduces economic systems, essential elements of business organization, production, human resource management, marketing, finance, and risk management. Develops business vocabulary. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

BUS 117: Leadership Development (3 cr.) — Covers interpersonal relations in hierarchical structures. Examines the dynamics of teamwork, motivation, handling change and conflict and how to achieve positive results through others. Lecture 3 hours per week. Offered every summer semester.

BUS 121: Business Mathematics I (3 cr.) — Applies mathematical operations to business processes and problems. Reviews operations, equations, percents, sales and property taxes, insurance, checkbook and cash records, wage and payroll computations, depreciation, overhead, inventory turnover and valuation, financial statements, ratio analysis, commercial discounts, markup, and markdown. Prerequisite: MTH 02 or satisfactory score on an appropriate proficiency examination. Lecture 3 hours per week. Offered every fall and spring semester.

BUS 122: Business Mathematics II (3 cr.) — Applies mathematical operations to business processes and problems. Reviews basic statistics, distribution of profit and loss in partnerships, distribution of corporate dividends, simple interest, present value, bank discount notes, multiple payment plans, compound interest, annuities, sinking funds, and amortization. Prerequisite: BUS 121. Lecture 3 hours per week. Offered every fall and spring semester.

BUS 165: Small Business Management (3 cr.) — Identifies management concerns unique to small businesses. Introduces the requirements necessary to initiate a small business and identifies the elements comprising a business plan. Presents information establishing financial and administrative controls, developing a marketing strategy, managing business operations, and the legal and government relationships specific to small businesses. Lecture 3 hours per week. Offered every fall semester.

BUS 200: Principles of Management (3 cr.) — Teaches management and the management functions of planning, organizing, leading and controlling. Focuses on application of management principles to realistic situations managers encounter as they attempt to achieve organizational objectives. Prerequisite: BUS 100 or college approval. Lecture 3 hours per week. Approved transfer elective. Offered every fall and spring semester.

BUS 201: Organizational Behavior (3 cr.) — Presents a behaviorally oriented course combining the functions of management with the psychology of leading and managing people. Focuses on the effective use of human resources through understanding human motivation and behavior patterns, conflict management and resolution, group functioning and process, the psychology of decision-making, and the importance of recognizing and managing change. Prerequisite: BUS 200 or college approval. Lecture 3 hours per week. Offered every fall semester.

BUS 205: Human Resource Management (3 cr.) — Introduces employment, selection, and placement of personnel, Forecasting, job analysis, job descriptions, training methods and programs, employee evaluation systems, compensation, benefits, and labor relations. Lecture 3 hours per week. Approved transfer elective. Offered every spring semester.

BUS 220: Introduction to Business Statistics (3 cr.) — Introduces statistics as a tool in decision making. Emphasizes ability to collect, present, and analyze data. Employs measures of central tendency and dispersion, statistical inference, index numbers, probability theory, and time series analysis. Prerequisite: BUS 122 or college approval. Lecture 3 hours per week. Offered every spring semester.

BUS 236: Communication in Management (3 cr.) — Introduces the functions of communication in management with emphasis on gathering, organizing and transmitting facts and ideas. Teaches the basic technique of effective oral and written communication. Lecture 3 hours per week. Prerequisite: ENG 01 and ENG 03 as co-requisites or minimum placement recommendation for ENG 111. Offered every semester.

BUS 241: Business Law I (3 cr.) — Develops a basic understanding of the US business legal environment. Introduces property and contract law, agency and partnership liability, and government regulatory law. Students will be able to apply these legal principles to landlord/tenant disputes, consumer rights issues, employment relationships, and other business transactions. Lecture 3 hours per week. Approved transfer elective. Offered every summer and fall semester.

BUS 242: Business Law II (3 cr.) — Focuses on business organization and dissolution, bankruptcy and Uniform Commercial Code. Introduces international law and the emerging fields of E-Commerce and Internet Law. Prerequisite: BUS 241 or approval by the Dean of Instruction. Lecture 3 hours per week. Should be taken in sequence. Approved transfer elective. Offered every spring semester.

BUS 265: Ethical Issues in Management (3 cr.) — Examines the legal, ethical, and social responsibilities of management. May use cases to develop the ability to think and act responsibly. Lecture 3 hours per week. Offered every fall semester.

BUS 280: Introduction to International Business (3 cr.) — Studies the problems, challenges, and opportunities which arise when business operations or organizations transcend national boundaries. Examines the functions of international business in the economy, international and transnational marketing, production, and financial operations. Lecture 3 hours per week.

CHILDHOOD DEVELOPMENT

CHD 118: Language Arts for Young Children (3 cr.) — Presents techniques and methods for encouraging the development of language and perceptual skills in young children. Stresses improvement of vocabulary, speech, and methods to stimulate discussion. Surveys children's literature, examines elements of quality storytelling and story reading, and stresses the use of audiovisual materials. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CHD 120: Introduction to Early Childhood Education (3 cr.) — Introduces early childhood development through activities and experiences in nursery, pre-kindergarten, kindergarten, and primary programs. Investigates classroom organization and procedures, and

use of classroom time and materials, approaches to education for young children, professionalism, and curricular procedures. Lecture 3 hours per week.

CHD 125: Creative Activities for Children (3 cr.) — Prepares individuals to work with young children in the arts and other creative, age-appropriate activities. Investigates effective classroom experiences and open-ended activities. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

CHD 126: Science and Math Concepts for Children (3 cr.) — Covers the selection of appropriate developmental learning materials for developing activities to stimulate logical thinking skills in children. Lecture 2-3 hours. Laboratory 0-3 hours. Total 3-4 hours per week.

CHD 205: Guiding the Behavior of Children (3 cr.) — Explores positive ways to build self-esteem in children and help them develop self-control. Presents practical ideas for encouraging pro-social behavior in children and emphasizes basic skills and techniques in classroom management. Lecture 3 hours per week.

CHD 210: Introduction to Exceptional Children (3 cr.) — Reviews the history of education for exceptional children. Studies the characteristics associated with exceptional children. Explores positive techniques for managing behavior and adapting materials for classroom use. Lecture 3 hours per week.

CIVIL ENGINEERING TECHNOLOGY

CIV 115 Civil Engineering Drafting (3 cr.) — Introduces terminology and drafting procedures related to civil engineering. Lecture 2 hours. Laboratory 3 hours. Total 5 hour per week.

CIV 116 Topographic Drafting (3 cr.) — Focuses on the development of techniques for topographic data computation, topographic map preparation and interpretation. Includes preparation of maps from survey field data, satellite and aerial photography, and techniques for the use of color in topographic presentations. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

CIV 171: Surveying I (3 cr.) — Introduces surveying equipment, procedures and computations including adjustment of instruments, distance measurement, leveling, angle measurement, traversing, traverse adjustments, area computations and introduction to topography. Prerequisite: MTH 104 or divisional approval. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week.

CIV 172 Surveying II (3 cr.) — Introduces surveys for transportation systems including the preparation and analysis of topographic maps, horizontal and vertical curves, earthwork and other topics related to transportation construction. Prerequisite: CIV 171 or equivalent. Lecture 2 hours. Laboratory 3 hours. Total 5 hour per week.

CHEMISTRY

CHM 101-102 General Chemistry I-II (4 Cr.) (4 Cr.) — Emphasizes experimental and theoretical aspects of inorganic, organic, and biological chemistry. Discusses general chemistry concepts as they apply to issues within our society and environment. Designed for

the non-science major. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

CHM 111-112: College Chemistry I-II (4 cr.) (4 cr.) — Explores the fundamental laws, theories, and mathematical concepts of chemistry. Designed primarily for science and engineering majors. Requires a strong background in mathematics. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Prerequisite: MTH 04 or placement into MTH 163. Approved transfer electives. Offered every semester

CHM 125: Chemistry for Nurses (3 cr.) — Introduces the basic concepts of general, organic, and biological chemistry necessary for practicing nurses. Lecture 3 hours per week. Prerequisite: MTH 02 or placement into MTH 03. Completion of MTH 03 recommended. Offered every semester

CHM 241-242 Organic Chemistry I-II (3 cr.) (3 cr.) — Introduces fundamental chemistry of carbon compounds, including structures, physical properties, syntheses, and typical reactions. Emphasizes reaction mechanisms. Corequisite: CHM 243-244 or CHM 245-246. Lecture 3 hours per week. Approved transfer electives.

CHM 245-246 Organic Chemistry Laboratory I-II (2 Cr.)(2 Cr.) — Includes qualitative organic analysis. Shall be taken concurrently with CHM 241 and CHM 242. Laboratory 4 hours. Total 4 hours per week.

COMPUTER SCIENCE

CSC 201: Computer Science I (4 cr.) — Introduces algorithm and problem solving methods. Emphasizes structured programming concepts, elementary data structures and the study and use of a high level programming language. Corequisite CSC 100 or IST 114 and MTH 173 or equivalent or divisional approval.. Lecture 4 hours per week. Approved transfer elective.

CSC 202: Computer Science II (4 cr.) — Examines data structures and algorithm analysis. Covers data structures (including sets, strings, stacks, queues, arrays, records, files, linked lists, and trees), abstract data types, algorithm analysis (including searching and sorting methods), and file structures. Prerequisite CSC 201. Corequisite MTH 174. Lecture 4 hours per week. Approved transfer elective.

DENTAL HYGIENE

DNH 111: Oral Anatomy (2 cr.) — Studies the morphology and function of the oral structures with emphasis on the primary and permanent dentition, eruption sequence, occlusion, and intra-arch relationships. Lecture 2 hours per week. Offered every fall semester.

DNH 113: General and Oral Histology (2 cr.) — Studies minute structure of the tissues of the body with particular reference to the teeth and the supporting tissues. Explains morphology of different tissues, early embryonic development, histologic features of the structures of the oral cavity. Lecture 2 hours per week. Offered every spring semester.

DNH 114: Head and Neck Anatomy (2 cr.) — Studies the anatomy and physiology of the structures of the head and neck. Lecture 2 hours per week. Offered every fall semester.

DNH 130: Oral Radiography for the Dental Hygienist (2 cr.) — Studies radiation physics, biology, safety, and exposure techniques for intra- and extra-oral radiographic surveys. Laboratory provides practice in exposure, processing methods, mounting, and interpretation of normal findings. Lecture 1-2 hours. Laboratory 3 hours. Total 4-5 hours per week. Offered every fall semester.

DNH 141: Dental Hygiene I (5 cr.) — introduces clinical knowledge and skills for the performance of dental hygiene services; basic skill components, lab manikins, and client practice. Lecture 3 hours. Clinic 6 hours. Total 9 hours per week. Offered every fall semester.

DNH 142: Dental Hygiene II (5 cr.) — Exposes students to instrument sharpening, time management, and client education techniques and methods. Provides supervised clinical practice in the dental hygiene clinic with emphasis on developing client treatment and instrument skills. Prerequisite DNH 141. Lecture 1-2 hours. Clinical 9-12 hours. Total 11-13 hours per week. Offered every spring semester.

DNH 143: Dental Hygiene III (4 cr.) — Introduces dental health care for clients with special needs. Includes introduction to computer concepts and applications. Provides supervised clinical practice in the dental hygiene clinic with emphasis on refining client treatment and instrumentation skills, including oral radiographs. Lecture 2 hours. Clinic 6 hours. Total 8 hours per week. Offered every summer semester.

DNH 145: General and Oral Pathology (2 cr.) — Introduces general pathology with consideration of the common diseases affecting the human body. Particular emphasis is given to the study of pathological conditions of the mouth, teeth and their supporting structures. Prerequisite: DNH 113, 114 or 115. Lecture 2 hours per week. Offered every spring semester.

DNH 146: Periodontics for the Dental Hygienist (2 cr.) — Introduces the theoretical and practical study of various concepts and methods used in describing, preventing, and controlling periodontal disease. Presents etiology, microbiology, diagnosis, treatment and prognosis of diseases. Lecture 2 hours per week. Offered every spring semester.

DNH 150: Nutrition (2 cr.) — Studies nutrition as it relates to dentistry and general health. Emphasizes the principles of nutrition as applied to the clinical practice of dental hygiene. Lecture 2 hours per week. Offered every spring semester.

DNH 215: Dental Materials (3 cr.) — Studies the physical and chemical properties of the materials used in dentistry. Laboratory experiences emphasize proper manipulation of materials. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Offered every summer semester.

DNH 216: Pharmacology (2 cr.) — Studies the chemical and therapeutic agents used in dentistry, including their preparation, effectiveness, and specific application. Lecture 2 hours per week. Offered every fall semester.

DNH 220: Community Dental Health (2 cr.) — Introduces the student to community health problems, public health, and related institutions. Lecture 2 hours per week. Offered every fall semester.

DNH 225: Community Dental Health Education (2 cr.) — Exposes students to the principles, practices, methods, and audio-visual materials used for group dental health instruction. Laboratory experience provides an opportunity for students to assume responsibility for designing, implementing and assessing community dental health programs. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week. Offered every spring semester

DNH 230: Office Practice and Ethics (1 cr.) — Studies the principles of dental ethics and economics as they relate to the dental hygienist. The course also includes a study of jurisprudence and office procedures. Lecture 1 hour per week. Offered every spring semester.

DNH 244: Dental Hygiene IV (5 cr.) — Introduces advanced skills and the dental hygienist's role in dental specialties. Includes supervised clinical practice in the dental hygiene clinic and/or off-campus clinical rotations at various community facilities. Emphasizes treatment of clients demonstrating periodontal involvement, stressing application and correlation of knowledge and skills from previous semesters. Prerequisite DNH 143 or DNH 190. Lecture 1 hour. Clinic 12 hours. Total 13 hours per week. Offered every fall semester.

DNH 245: Dental Hygiene V (5 cr.) — Exposes student to current advances in dentistry. Includes supervised clinical practice in the dental hygiene clinic and/or off-campus clinical rotations at various community facilities. Emphasis is placed on synthesis of knowledge from previous semesters, treatment of clients with moderate to advanced periodontal involvement and improving clinical speed while maintaining quality in preparation for practice. Prerequisite: DNH 244. Lecture 1 hour. Clinic 12 hours. Total 13 hours per week. Offered every spring semester.

DRAFTING

DRF 151-152 Engineering Drawing Fundamentals I-II (3 cr.) (3 cr.) — Introduces technical drafting from the fundamentals through advanced drafting practices. Includes lettering, geometric construction, technical sketching, orthographic projection, sections, intersections, development, fasteners. Teaches theory and application of dimensioning and tolerances, pictorial drawing, and preparation of drawings. Lecture 1 hour. Laboratory 4-6 hours. Total 5-7 hours per week.

DRF 201: Computer Aided Drafting and Design I (3 cr.) — Teaches computer-aided drafting concepts and equipment designed to develop a general understanding of components of a typical CAD system and its operation. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

DRF 202: Computer Aided Drafting and Design II (3 cr.) — Teaches production drawings and advanced operations in computer aided drafting. Lecture 2-3 hours. Laboratory 2-3 hours. Total 4-6 hours per week.

DRF 241-242 Parametric Solid Modeling I-II

(3 cr.) (3 cr.) — Focuses on teaching students the design of parts by parametric solid modeling. Topics covered will include, but not limited to, sketch profiles; geometric and dimensional constraints; 3-D features; model generation by extrusion, revolution and sweep; and the creation of 2-D drawing views that include sections, details and auxiliary. Lecture 3-4 hours. Laboratory 0-3 hours. Total 3-7 hours per week.

ECONOMICS

Note: ECO 120 and ECO 201-202 contain similar course content. Students should take either ECO 120 or ECO 201-202 unless they plan to take all three courses.

ECO 120: Survey of Economics (3 cr.) — Presents a broad overview of economic theory, history, development, and application. Introduces terms, definitions, policies, and philosophies of market economies. Provides some comparison with other economic systems. Includes some degree of exposure to microeconomic and macroeconomic concepts. Lecture 2-3 hours per week. Approved transfer elective. Offered every fall and spring semester.

ECO 201: Principles of Macroeconomics (3 cr.) — Introduces macroeconomics including the study of Keynesian, classical, monetarist principles and theories, the study of national economic growth, inflation, recession, unemployment, financial markets, money and banking, the role of government spending and taxation, along with international trade and investments. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

ECO 202: Principles of Microeconomics (3 cr.) — Introduces the basic concepts of microeconomics. Explores the free market concept with coverage of economic models and graphs, scarcity and choices, supply and demand, elasticities, marginal benefits and costs, profits, and production and distribution. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

EDUCATION

EDU 114 Driver Task Analysis (3 Cr.) — Introduces the “driver task” as related to the highway transportation system and factors that influences performance ability. Prepares students so they may be eligible to take certification exams for driving school instructors in both public and private schools. Prerequisite: Must be legible for ENG 03 and 05 or ESL 13. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

EDU 200: Introduction to Teaching as a Profession (3 cr.) — Provides an orientation to the teaching profession in Virginia, including historical perspectives, current issues, and future trends in education on the national and state levels. Emphasizes information about teacher licensure examinations, steps to certification, teacher preparation and induction programs, and attention to critical shortage areas in Virginia. Includes supervised field placement (recommended: 40 clock hours) in a K-12 school. Prerequisite: Successful completion of 24 credits of transfer courses. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week. Offered every semester.

EDU 214 Instructional Principles of Driver Education (3 Cr.) — Analyzes rules and regulations that govern the conduct of Driver Education programs with special emphasis on organization and administration. Includes uses in the classroom, driving range and on the street. Prepares students so they may be eligible to take the state certification exam in driver education. Prerequisite: EDU 114. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

ENGINEERING

EGR 130 Statics and Strength of Materials for Engineering Technology (4 cr.) — Presents principles and applications of free-body diagrams of force systems in equilibrium. Analyzes frames and trusses. Presents principles and applications to problems in friction, centroids and moments of inertia. Includes properties of materials, stress, strain, elasticity, design of connections, shear and bending in statically determinate beams, and axially loaded columns. Lecture 3-4 hours. Laboratory 0-4 hours. Total 4-7 hours per week.

EGR 250 Electrical Theory (3 cr.) — Designed for non-electrical engineering majors. Presents fundamentals of DC and AC electric circuits, circuit laws and network theorems; response of first- and second-order circuits; feedback; two-port network. Lecture 3-4 hours per week.

ENGLISH

ENG 01: Preparing for College Writing I (3 cr.) — Helps students discover and develop writing processes needed to bring their proficiency to the level necessary for entrance into their respective curricula. Guides students through the process of starting, composing, revising, and editing. 3 hours per week. Offered every semester.

ENG 03: Preparing for College Writing II (3 cr.) — Emphasizes strategies within the writing process to help students with specific writing situations. Develops techniques to improve clarity of writing and raise proficiency to the level necessary for entrance into particular curricula. 3 hours per week. Prerequisite: ENG 01 or equivalent. Offered every semester.

ENG 04: Reading Improvement I (3 cr.) — Helps students improve their reading processes to increase their understanding of reading materials. Includes word forms and meanings, comprehension techniques, and ways to control reading pace. 3 hours per week. Offered every semester.

ENG 05: Reading Improvement II (3 cr.) — Helps students read critically and increase appreciation of reading. Guides students in making inferences, drawing conclusions, detecting relationships between generalizations and supporting details. Includes interpreting graphic aids and basic library skills. Prerequisite: ENG 04 or equivalent. 3 hours per week. Offered every semester.

ENG 07: Writing and Reading Improvement I (6 cr.) — Provides an integrated approach to developing students' writing and reading processes. Prepares students to complete assignments successfully by providing them with reading and writing strategies. Prerequisite: ENG 01 and ENG 04 or equivalent. 6 hours per week. Offered every semester.

ENG 111: College Composition I (3 cr.) — Introduces students to critical thinking and the fundamentals of academic writing. Through the writing process, students refine topics: develop and support ideas; investigate, evaluate, and incorporate appropriate resources; edit for effective style and usage; and determine appropriate approaches for a variety of contexts, audiences, and purposes. Writing activities will include exposition and argumentation with at least one researched essay. Lecture 3 hours per week. Prerequisite: ENG 03 or equivalent or satisfactory score on an appropriate proficiency examination. Approved transfer elective. ENG 111 offered every semester.

ENG 112: College Composition II (3 cr.) — Continues to develop college writing with increased emphasis on critical essays, argumentation, and research, developing these competencies through the examination of a range of texts about the human experience. Requires students to locate, evaluate, integrate, and document sources and effectively edit for style and usage. Lecture 3 hours per week. Prerequisite: Students must successfully complete ENG 111 or its equivalent, and must be able to use word processing software. Approved transfer elective. ENG 112 offered every semester.

ENG 150 Children's Literature (3 Cr.) — Surveys the history of children's literature, considers learning theory and developmental factors influencing reading interests, and uses bibliographic tools in selecting books and materials for recreational interests and educational needs of children. Lecture 3 hours per week.

ENG 210: Advanced Composition (3 cr.) — Helps students refine skills in writing non-fiction prose. Guides development of individual voice and style. Introduces procedures for publication. Lecture 3 hours per week. Prerequisite: ENG 112 or divisional approval. Approved transfer elective. Offered every other fall semester.

ENG 211-212: Creative Writing I-II (3 cr.) (3 cr.) — Introduces the student to the fundamentals of writing imaginatively. Students write in forms to be selected from poetry, fiction, drama, and essays. Lecture 3 hours per week. Prerequisite: ENG 112 or divisional approval. Approved transfer electives.

ENG 215-216 Creative Writing - Fiction I-II (3 Cr.) (3 Cr.) — Introduces the fundamentals and techniques of writing short and long fiction. Lecture 3 hours per week.

ENG 217-218 Creative Writing - Poetry I-II (3 Cr.) (3 Cr.) — Introduces the fundamentals and techniques of writing poetry. Lecture 3 hours per week.

ENG 233: The Bible as Literature (3 cr.) — Provides an introduction to the study of the Bible as literature. Examines the intent and presentation of major literary genres found in the Bible, refining skills of analysis, synthesis, and evaluation. Lecture 3 hours per week. Prerequisite: ENG 112 Approved transfer elective. Offered every fall semester.

ENG 236: Introduction to the Short Story (3 cr.) — Examines selected short stories emphasizing the history of the genre. Involves critical reading and writing. Lecture 3 hours per week. Prerequisite: ENG 112. Approved transfer elective. Offered every spring and summer semesters.

ENG 241-242: Survey of American Literature I-II (3 cr.) (3 cr.) — Examines American literary works from colonial times to the present, emphasizing the ideas and characteristics of our national literature. Involves critical reading and writing. Lecture 3 hours per week. Prerequisite: ENG 112. Need not be taken in sequence. Approved transfer electives. ENG 241 offered every fall and summer semesters. ENG 242 offered every spring semester.

ENG 243-244: Survey of English Literature I-II (3 cr.) (3 cr.) — Studies major English works from the Anglo-Saxons to the present, emphasizing ideas and characteristics of the British literary tradition. Involves critical reading and writing. Lecture 3 hours per week. Prerequisite: ENG 112. Need not be taken in sequence. Approved transfer electives. ENG 243 offered every fall and summer semesters. ENG 244 offered every spring semester.

ENG 246: Major American Writers (3 cr.) — Examines major writers of American literary history. Involves critical reading and writing. Lecture 3 hours per week. Prerequisite: ENG 112. Approved transfer elective. Offered every fall semester.

ENG 247: Survey of Popular Culture (3 cr.) — Analyzes familiar aspects of American culture, as seen through popular literature, with additional emphasis on television, film, and popular art. Lecture 3 hours per week. Prerequisite ENG 112 or divisional approval. Approved transfer elective.

ENG 273-274: Women in Literature I-II (3 cr.) (3 cr.) — Examines literature by and about women. Involves critical reading and writing. Lecture 3 hours per week. Prerequisite: ENG 112. Need not be taken in sequence. Approved transfer elective. ENG 273 offered every other fall semester. ENG 274 offered every other spring semester.

ENG 276: Southern Literature (3 cr.) — Examines the themes and techniques of selected writers dealing with the American South as a distinctive cultural entity. Involves critical reading and writing. Lecture 3 hours per week. Prerequisite: ENG 112. Approved transfer elective. Offered every other spring semester.

ENG 279: Film and Literature (3 cr.) — Examines the transition of literature into film viewing and writing. Lecture 3 hours per week. Prerequisite: ENG 112. Approved transfer elective.

ENVIRONMENTAL SCIENCE

ENV 136: Survey of Environmental Concerns (3 cr.) — Studies the relationship of man to his physical environment; ecological principles; public health; topics of current importance including air pollution, potable water, waste disposal, communicable disease, poisoning and toxicity, radiation, with particular emphasis on community action programs. Lecture 3 hours per week. Approved transfer elective. Offered every fall and spring semester.

ENGLISH AS A SECOND LANGUAGE

ESL 05: English as a Second Language: Reading I (3 cr.) — Helps students improve their reading comprehension and vocabulary. Improves students' reading proficiency to a level which would allow the students to function adequately in ESL 06 and other college classes. Lecture 3 hours per week.

ESL 06: English as a Second Language: Reading II (3 cr.) — Helps students improve their reading comprehension and vocabulary. Improves students' reading proficiency to a level which would allow students to function adequately in the ESL 17 reading class and other college classes. Lecture 3 hours per week.

ESL 07: Oral Communication I (3 cr.) — Helps students practice and improve listening and speaking skills as needed for functioning successfully in academic, professional, and personal settings. Assesses students' oral skills and includes, as needed, practice with pronunciation, rhythm, stress, and intonation. Provides exercises, practices, small and large group activities, and oral presentations to help students overcome problems in oral communication. Lecture 3 hours per week.

ESL 09: Accent Reduction (3 cr.) — Provides contextualized practice at the high intermediate/advanced level to improve the speech intelligibility of non-native speakers of English. Focuses on problems of American English sound/spelling patterns, word endings, syllables, stress, rhythm and intonation common to speakers of different language backgrounds. May include individualized practice in consonant and vowel production. Lecture 3 hours per week.

ESL 11: English as a Second Language I (3 cr.) — Provides instruction and practice in the writing process, emphasizing development of fluency writing and competence in structural and grammatical patterns of written English. Lecture 3 hours per week.

ESL 12: English as a Second Language: Composition II (3 cr.) — Provides further instruction and practice in the writing process, and introduces advanced language patterns. Includes practice in developing and improving writing strategies. Lecture 3 hours per week.

ESL 19: English as a Second Language: Spelling and Vocabulary (3 cr.) — Provides individualized instruction and practice in sound-letter correspondences. Introduces students to basic spelling rules, word division, prefixes, roots and suffixes. Helps students master vocabulary through an understanding of homonyms, confusing words, and Greek and Latin roots. Stresses using words in context. Lecture 3 hours per week.

FINANCIAL SERVICES

FIN 107: Personal Finance (3 cr.) — Presents a framework of personal money management concepts, including establishing values and goals, determining sources of income, managing income, preparing a budget, developing consumer buying ability, using credit, understanding savings and insurance, providing for adequate retirement, and estate planning. Lecture 3 hours per week. Offered every spring semester.

FIN 166: Credit Analysis (3 cr.) — Uses ratios and other measures to interpret and analyze financial statements. Emphasizes comparative statement analysis and examines organizational structure necessary for effective collection results. Focuses on policies and procedures necessary to handle collection correspondence. Covers such other topics as legal aids, use of adjustment bureaus, bankruptcy, and insurance. Examines credit practices and policies of banks and finance companies. Introduces foreign credit and collection procedures. Prerequisite FIN 116 or divisional approval. Lecture 2-3 hours per week.

FIN 215: Financial Management (3 cr.) — Introduces basic financial management topics including statement analysis, working capital, capital budgeting, and long-term financing. Focuses on Net Present Value and Internal Rate of Return techniques, lease vs. buy analysis, and cost of capital computations. Uses problems and cases to enhance skills in financial planning and decision making. Prerequisite: BUS 122 or approval by the Dean of Instruction. Lecture 3 hours per week. Offered every fall semester.

FIRE SCIENCE

FST 100 Introduction to Fire Science (3 Cr.) — Introduces basic concepts involved in fire suppression including fire behavior, building codes built in protection systems and the life safety code. Discusses the history and philosophy of the fire service at the national, state, and local levels and analyzes the overall fire problem. Lecture 3 hours per week.

FST 110 Hazardous Materials for Protective Services (4 Cr.) — Presents an overview of chemistry of hazardous materials including solids, liquids, gases and methods used in their identification. Examines the use, handling, and transportation and medical and environmental problems associated with hazardous materials. Discusses methods and provides specific skills and techniques used by the emergency worker in the abatement of hazardous materials incidents. Also provides an overview of specific medical incidents and treatments modalities associated with hazardous materials exposures. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week

FST 112 Fundamentals of Hazardous Materials (3 Cr.) — Introduces the chemistry of hazardous materials including solids, liquids, gases, and methods used in their identification. Examines the use, handling, transportation and environmental problems associated with hazardous materials. Lecture 3 hours per week.

FST 115 Fire Prevention (3 Cr.) — Provides fundamental information regarding the history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use of fire codes, identification and correction of fire hazards, and the relationships of fire prevention with built-in fire protection systems, fire investigation, and fire and life-safety education. Lecture 3 hours per week.

FST 120 Occupational Safety and Health for the Fire Service (3 Cr.) — Introduces the basic concepts of occupational health and safety as it relates to emergency service organizations. Includes risk evaluation and control procedures for fire stations, training sites, emergency vehicles, and emergency situations involving fire, EMS, hazardous materials, and technical rescue. Upon completion of this course, students should be able to establish and manage a safety program in an emergency service organization. Lecture 3 hours per week.

FST 205 Fire Protection Hydraulics and Water Supply (3 Cr.) — Provides a foundation of theoretical knowledge in order to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and to solve water supply problems. Lecture 3 hours per week.

FST 210 Legal Aspects of Fire Service (3 Cr.) — Introduces the Federal, State, and local laws that regulate emergency services, national standards influencing emergency services, standard of care, tort, liability, and a review of relevant court cases. Lecture 3 hours per week.

FST 215 Fire Protection Systems (3 Cr.) — Provides information relating to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers. Lecture 3 hours per week.

FST 220 Building Construction for Fire Protection (3 Cr.) — Provides the components of building construction that relate to fire and life safety. Focuses on firefighter safety. Covers the elements of construction and design of structures and how they are key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. Lecture 3 hours per week.

FST 235 Strategy and Tactics (3 Cr.) — Provides an in-depth analysis of the principles of fire control through utilization of personnel, equipment, and extinguishing agents on the fire ground. Lecture 3 hours per week.

FST 240 Fire Administration (3 Cr.) — Introduces the student to the organization and management of a fire department and the relationship of government agencies to the first service. Emphasis on fire service leadership from the perspective of the company officer. Lecture 3 hours per week.

FST 245 Fire and Risk Analysis (3 Cr.) — Presents a study of current urban fire problems with emphasis on solutions based upon current available technology. Includes master planning, as well as methods of identifying, analyzing and measuring accompanying risk and loss possibilities. Prerequisite: FST 240. Lecture 3 hours per week.

FRENCH

FRE 101-102: Beginning French I-II (4 cr.) (4 cr.) — Introduces understanding, speaking, reading, and writing skills and emphasizes basic French sentence structure. Lecture 4-5 hours per week. May include one additional hour of oral practice per week. Approved transfer electives. FRE 101 offered every fall semester. FRE 102 offered every spring semester.

FRE 201-202: Intermediate French I-II (3 cr.) (3 cr.) — Continues to develop understanding, speaking, reading, and writing skills. French is used in the classroom. Prerequisite: FRE 102 or equivalent. Lecture 3-4 hours per week. May include one additional hour of oral practice per week. Approved transfer electives.

GERMAN

GER 101-102: Beginning German I-II (4 cr.) (4 cr.) — Introduces understanding, speaking, reading, and writing skills and emphasizes basic German sentence structures. Lecture 4-5 hours per week. May include one additional hour oral practice per week. Approved transfer electives. GER 101 offered every fall semester. GER 102 offered every spring semester.

GER 201-202: Intermediate German I-II (3 cr.) (3 cr.) — Continues to develop understanding, speaking, reading, and writing skills. German is used in the classroom. Prerequisite GER 102 or equivalent. Lecture 3-4 hours per week. May include one additional hour of oral practice per week. Approved transfer electives.

GEOGRAPHICAL INFORMATION SYSTEMS

GIS 200 Geographical Information Systems I (4 Cr.) — Provides hands-on introduction to a dynamic desktop GIS (Geographic Information System). Introduces the components of a desktop GIS and their functionality. Emphasizes manipulation of data for the purpose of analysis, presentation, and decision-making. Prerequisite: IST 117 or instructor approval. Lecture 3 hours. Laboratory 2 hours. Total 5 hours per week.

GEOGRAPHY

GEO 200 Introduction to Physical Geography (3 Cr.) — Studies major elements of the natural environment including earth sun relationship, land forms, weather and climate, natural vegetation and soils. Introduces the student to types and uses of maps. Lecture 3 hours per week.

GEO 210: People and the Land: Introduction to Cultural Geography (3 cr.) — Focuses on the relationship between culture and geography. Presents a survey of modern demographics, landscape modification, material and nonmaterial culture, language, race and ethnicity, religion, politics, and economic activities. Introduces the student to types and uses of maps. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

GEO 220: World Regional Geography (3 cr.) — Studies physical and cultural characteristics of selected geographical regions of the world. Focuses upon significant problems within each of the regions, and examines the geographical background of those problems. Introduces the student to types and uses of maps. Lecture 3 hours per week. Approved transfer elective. Offered every fall and spring semester.

GEOLOGY

GOL 105: Physical Geology (4 cr.) — Introduces the composition and structure of the earth and modifying agents and processes. Investigates the formation of minerals and rocks, weathering, erosion, earthquakes, and crustal deformation. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Approved transfer elective. Offered every fall semester.

GOL 106: Historical Geology (4 cr.) — Traces the evolution of the earth and life through time. Presents scientific theories of the origin of the earth and life and interprets rock and fossil records. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week. Approved transfer elective. Offered every spring semester.

HEALTH

HLT 100: First Aid and Cardiopulmonary Resuscitation (3 cr.) — Focuses on the principles and techniques of safety, first aid, and cardiopulmonary resuscitation. Lecture 2-3 hours per week. Approved transfer elective. Offered every semester.

HLT 105: Cardiopulmonary Resuscitation (1 cr.) — Provides training in coordinated mouth-to-mouth artificial ventilation and chest compression, choking, life-threatening emergencies, and sudden illness. Lecture 1 hour per week. Offered every semester.

HLT 106: First Aid and Safety (2 cr.) — Focuses on the principles and techniques of safety and first aid. Lecture 2 hours per week. Offered every fall and spring semester.

HLT 110: Concepts of Personal and Community Health (3 cr.) — Studies the concepts related to the maintenance of health, safety, and the prevention of illness at the personal and community level. Lecture 2-3 hours per week. Approved transfer elective. Offered every semester.

HLT 116: Introduction to Personal Wellness Concepts (3 cr.) — Introduces students to the dimensions of wellness including the physical, emotional, environmental, spiritual, occupational, and social components. Lecture 2-3 hours per week. Approved transfer elective. Offered every semester.

HLT 135: Child Health and Nutrition (3 cr.) — Focuses on the physical needs of the preschool child and methods by which these are met. Emphasizes health routines, hygiene, nutrition, feeding and clothing habits, childhood diseases, and safety as related to health, growth and development. Lecture 3 hours per week. Offered every semester.

HLT 138: Principles of Nutrition (2 cr.) — Studies nutrient components of food, including carbohydrates, fats, proteins, vitamins, minerals and water. Provides a behavioral approach to nutrient guidelines for the development and maintenance of optimum wellness. Lecture 1-2 hours per week. Offered every summer semester.

HLT 143-144: Medical Terminology I-II (3 cr.) (3 cr.) — Provides an understanding of medical abbreviations and terms. Includes the study of prefixes, suffixes, word stems, and technical terms with emphasis on proper spelling, pronunciation, and usage.

Emphasizes more complex skills and techniques in understanding medical terminology. Lecture 3 hours per week. Approved transfer electives. HLT 143 offered every fall and spring semester.

HLT 230: Principles of Nutrition and Human Development (3 cr.) — Teaches the relationship between nutrition and human development. Emphasizes nutrients, balanced diet, weight control, and the nutritional needs of an individual. Lecture 3 hours per week. Approved transfer elective. Offered every fall and spring semester.

HLT 250: General Pharmacology (2 cr.) — Emphasizes general pharmacology for the health related professions covering general principles of drug actions/reactions, major drug classes, specific agents within each class, and routine mathematical calculations needed to determine desired dosage. Germanna's AAS program (2 cr.), Commonwealth Nursing Program (3 cr.). Lecture 2-3 hours per week. Offered every semester.

HLT 270: Health and Well-Being of the Older Adult (3 cr.) — Focuses on the health of the older adult; teaches health promotion; preventative health techniques; and accident prevention. Lecture 3 hours per week. Offered every other spring semester.

HISTORY

HIS 101-102: History of Western Civilization I-II (3 cr.) (3 cr.) — Examines the development of western civilization from ancient times to the present. Lecture 3 hours per week. Need not be taken in sequence. Prerequisite: Completed ENG 03 or minimum placement recommendation for ENG 111. Approved transfer electives. Offered every semester.

HIS 111-112: History of World Civilization I-II (3 cr.) (3 cr.) — Surveys Asian, African, Latin American, and European civilizations from the ancient period to the present. Lecture 3 hours per week. Need not be taken in sequence. . Prerequisite: Completed ENG 03 or minimum placement recommendation for ENG 111. Approved transfer electives. HIS 111 offered every fall semester. HIS 112 offered every spring semester.

HIS 121-122: United States History I-II (3 cr.) (3 cr.) — Surveys United States history from its beginning to the present. Lecture 3 hours per week. Need not be taken in sequence. . Prerequisite: Completed ENG 03 or minimum placement recommendation for ENG 111. Approved transfer electives. HIS 121 offered every semester. HIS 122 offered every semester.

HIS 155: Life in Colonial Virginia (3 cr.) — Studies life in Virginia before the American Revolution, including politics, economics, customs, culture, and the slave plantation system. Lecture 3 hours per week. . Prerequisite: Completed ENG 03 or minimum placement recommendation for ENG 111. Approved transfer elective. Offered every summer semester.

HIS 211: History of England (3 cr.) — Surveys the history of the British Isles from pre-Celtic times to the present. Lecture 3 hours per week. . Prerequisite: Completed ENG 03 or minimum placement recommendation for ENG 111.

HIS 262 United States History in Film (3 cr.) — Examines selected topics in the United States history which Shaped the American experience, presented in film. Lecture 3 hours per week. Completed ENG 03 or minimum placement recommendation for ENG 111. Approved transfer elective.

HIS 266: Military History of the Civil War (3 cr.) — Analyzes military campaigns of the Civil War, including factors contributing to the defeat of the Confederacy and problems created by the war. May include field trips to Civil War sites in the region. Lecture 3 hours per week. . Prerequisite: Completed ENG 03 or minimum placement recommendation for ENG 111. Approved transfer elective.

HIS 268: The American Constitution (3 cr.) — Analyzes the origin and development of the United States Constitution. Includes the evolution of civil liberties, property rights, contracts, due process, judicial review, federal-state relationships, and corporate-government relations. Lecture 3 hours per week. . Prerequisite: Completed ENG 03 or minimum placement recommendation for ENG 111. Approved transfer elective.

HIS 269: Civil War and Reconstruction (3 cr.) — Studies factors that led to the division between the States. Examines the war, the home fronts, and the era of Reconstruction. Lecture 3 hours per week. Prerequisite: Completed ENG 03 or minimum placement recommendation for ENG 111. Approved transfer elective.

HIS 276: United States History Since World War II (3 cr.) — Investigates United States history from 1945 to the present, studying both domestic developments and American involvement in international affairs. Lecture 3 hours per week. . Prerequisite: Completed ENG 03 or minimum placement recommendation for ENG 111. Approved transfer elective. Offered every other spring semester.

HORTICULTURE

HRT 108 Plant Identification (2 Cr.) - Studies the identification, culture and uses of common woody and herbaceous landscape plants. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

HRT 110: Principles of Horticulture (3 cr.) — Introduces concepts of plant growth and development. Covers horticultural practices, crops and environmental factors affecting plant growth. Lecture 3 hours per week.

HRT 127: Horticultural Botany (3 cr.) — Studies taxonomy, anatomy, morphology, physiology, and genetics of plants as applied to identification, propagation and culture. Prerequisite: HRT 110 recommended. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

HRT 137: Environmental Factors in Plant Growth (3 cr.) — Explores environmental factors that affect plant growth, including rainfall, humidity, wind, temperature, sunlight, irrigation, heating, and shading. Examines methods of inducing and breeding dormancy, lighting, and shading systems, and the relationship between day length and flowering. Prerequisite: HRT 110 recommended. Lecture 3 hours per week.

HRT 207: Plant Pest Management (3 cr.) — Teaches principles of plant pest management. Covers morphology and life cycles of insects and other small animal pests and plant pathogens. Lab stresses diagnosis, chemical and non-chemical control of specific pests, and pesticide safety. Prerequisite: HRT 110 recommended. Lecture 2 hours. Laboratory 2 hours. Total 4 hours per week.

HRT 245: Woody Plants (2- 3 cr.) — Studies identification, culture, and uses of woody plants in landscaping. Includes deciduous and evergreen, native and cultivated shrubs, trees and vines. Teaches scientific and common names of plants. Prerequisite: HRT 110 and HRT 127 recommended. Lecture 1-2 hours. Laboratory 2 hours. Total 3-4 hours per week.

HRT 246: Herbaceous Plants (2-3 cr.) — Studies identification, culture and uses of herbaceous plants in landscaping. Includes perennials, biennials, common bulbs and annuals. Teaches scientific and common names of plants. Prerequisite: HRT 110 and HRT 127 recommended. Lecture 1-2 hours. Laboratory 2 hours. Total 3 hours per week.

HUMANITIES

HUM 100: Survey of the Humanities (3 cr.) — Introduces the humanities through the art, literature, music, and philosophy of various cultures and historical periods. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

HUM 111-112: Great Books I-II (3 cr.) (3 cr.) — Introduces selected great works of philosophy and literature, with Emphasis on close analysis of the text. Lecture 3 hours per week. Approved transfer electives. HUM 111 offered every other fall semester. HUM 112 offered every other spring semester.

HUM 165 Controversial Issues in Contemporary American Culture (3 Cr.) — Introduces students to selected issues in contemporary American culture. includes topic areas ranging from welfare reform, economic development, privacy, environmental protection and conservation, evolution vs. creation, to family values, and special interest lobbying in our state and national governments. Focuses on the development of the student's critical thinking skills by analyzing, evaluating, and reflecting on opposing sides of the same issue as expressed by public leaders, special interest groups and academicians. Lecture 3 hours per week.

HUM 201: Survey of Western Culture I (3 cr.) — Studies thought, values, and arts of Western culture, integrating developments in art, architecture, literature, music, and philosophy. Covers the following periods: Ancient and Classical, Early Christian and Byzantine, Medieval, and Early Renaissance. Lecture 3 hours per week. Approved transfer elective. Offered every fall semester.

HUM 202: Survey of Western Culture II (3 cr.) — Studies thought, values, and arts of Western culture, integrating major developments in art, architecture, literature, music, and philosophy. Covers the following periods: Renaissance, Baroque, Enlightenment, Romantic, and Modern. Lecture 3 hours per week. Approved transfer elective. Offered every spring semester

HUM 210: Introduction to Women's Studies (3 cr.) — Introduces interdisciplinary and cross-cultural theories that explore gender, race, and class issues relating to women's lives, past and present. Prerequisite: ENG 112. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

HUM 211-212: Survey of American Culture I-II (3 cr.) (3 cr.) — Examines elements of our national culture as they evolved from the first European explorations through colonization and independence to the present day. Lecture 3 hours per week. Need not be taken in sequence. Approved transfer electives. HUM 211 offered every other fall semester. HUM 212 offered every other spring semester.

HUM 220: Introduction to African-American Studies (3 cr.) — Presents an interdisciplinary approach to the study of African-American life, history, and culture. Examines specific events, ideologies, and individuals that have shaped the contours of African-American life. Studies the history, sociology, economics, religion, politics, psychology, creative productions, and culture of African-Americans. Lecture 3 hours per week. Approved transfer elective.

HUM 241-242: Interdisciplinary Principles of the Humanities I-II (3 cr.) (3 cr.) — Integrates unifying principles of the humanities and related fields of study. Emphasizes the expansion of the student's intellectual perspective and development of concepts enabling the integration of knowledge from diverse fields into a unified whole. Lecture 3 hours per week. Approved transfer electives.

HUM 256: Mythology in Literature and the Arts (3 cr.) — Studies cultural expressions of mythology in literature and the arts. Considers several of the following mythologies, with emphasis on parallels and divergences: Egyptian, Near- Eastern, Greek, Roman, Celtic, Norse, Asian, and African. Lecture 3 hours per week. Approved transfer elective.

HUM 259: Greek Mythology (3 cr.) — Surveys and analyzes major stories from Greek Mythology. Explores psychological, anthropological, and historical interpretations of the myths. Acquaints students with recurring mythological themes in language, art, music, and literature. Lecture 3 hours per week. Approved transfer elective.

HUM 260: Survey of Twentieth-Century Culture (3 cr.) — Explores literature, visual arts, philosophy, music, and history of our time from an interdisciplinary perspective. Lecture 3 hours per week. Approved transfer elective.

INFORMATION SYSTEMS TECHNOLOGY

Information Technology Programming

ITD 110: Web Page Design I (3 cr.) — Stresses a working knowledge of web site designs, construction, and management using HTML or XHTML. Includes headings, lists, links, images, image maps, tables, forms, and frames. Prerequisite: Recommended ITE 115. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITD 130: Database Fundamentals (3 cr.) — Introduces the student to Relational Database and Relational Database theory. Includes planning, defining and using a database; table design, linking, and normalization; types of databases, database description and definition. Prerequisite: Recommended ITE 115. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITD 136 Database Management Software (3 cr.) — Covers an introduction to relational database theory and how to administer and query databases using multiple commercial database systems. Prerequisite: Recommended ITE 115. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITD 210: Web Page Design II (3 cr.) — Incorporates advanced techniques in web site planning, design, usability, accessibility, advanced site management, and maintenance utilizing web editor software(s). Prerequisite: Recommended ITD 110. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITD 220: e-commerce Administration (3 cr.) — Emphasizes techniques to plan and design a platform-independent commerce Web site. Focuses on web business strategies, and the hardware and software tools necessary for Internet commerce, including comparison and selection of commerce architecture, installation and configuration, security considerations, and planning of a complete business-to-consumer and business-to-business site. Recommended prerequisite ITD110. Lecture 3 hours.

Information Technology Essentials

ITE 100: Introduction to Information Systems (3 cr.) — Covers the fundamentals of computers and computing and topics which include impact of computers on society, ethical issues, and terminology. Provides discussion about available hardware and software as well as their application. Lecture 3-4 hours. Laboratory 0-2 hours. Total 2-5 hours per week. Approved transfer elective.

ITE 115: Introduction to Computer Applications and Concepts (3 cr.) — Covers computer concepts and internet skills and uses a software suite which includes word processing, spreadsheet, database, and presentation software to demonstrate skills required for computer literacy. Recommended prerequisite keyboarding skills. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week. Approved transfer elective. Offered every semester.

ITE 160: Introduction to e-Commerce (3 cr.) — Studies the culture and demographics of the Internet, on-line business strategies and the hardware and software tools necessary for Internet commerce. Includes the identification of appropriate target segments, the development of product opportunities, pricing structures, distribution channels over the Internet, and the execution of marketing strategy in computer-mediated environments. Presents case histories of successful Web applications. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITE 180: Help Desk Support Skills (3 cr.) — Emphasizes instruction in customer support techniques required for analyzing and coordinating software and hardware solutions for end-user needs. Includes evaluation and communication techniques required to provide help desk support necessary to transfer knowledge and

enable implementation of a solution. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITE 215: Advanced Computer Literacy (3 cr.) — Incorporates advanced computer concepts including the integration of a software suite. Prerequisite: ITE 115. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

Information Technology Networking

ITN 100: Introduction to Telecommunications (3 cr.) — Surveys data transmission systems, communication lines, data sets, network, modes of transmission, protocols, and interfacing. Emphasizes network structure and operation. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week. Approved transfer elective.

ITN 101: Introduction to Network Concepts (3 cr.) — Provides instruction in networking media, physical and logical topologies, common networking standards and popular networking protocols. Emphasizes the TCP/IP protocol suite and related IP addressing schemes, including CIDR. Includes selected topics in network implementation, support and LAN/WAN connectivity. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week

ITN 120: Wireless - Network Administration (WNA) (3 cr.) — Provides instruction in fundamentals of wireless information systems. Course content includes terms, standards, components, and operating requirements in the design and implementation of wireless networks. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week. Offered every spring semester.

ITN 170: Linux System Administration (3 cr.) — Focuses instruction on the installation, configuration and administration of the Linux operating system and emphasizes the use of Linux as a network client and workstation. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITN 171: Unix 1 (3 cr.) — Provides an introduction to UNIX operating systems. Teaches login procedures, file creation, UNIX file structure, input/output control, and the UNIX shell. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITN 208: Protocols and Communications (4 cr.) — Provides an understanding of the TCP/IP suite and the details of its implementation. Discusses details of implementation such as IP addressing, the structure of frames and protocol headers that enable communication between two computers. Discusses IP routing, tunneling, SNMP, and security. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITN 260: Network Security Basics (3 cr.) — Provides instruction in the basics of network security in depth. Includes security objectives, security architecture, security models and security layers; risk management, network security policy, and security training. Includes the five security keys, confidentiality, integrity, availability, accountability, and auditability. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITN 261: Network Attacks, Computer Crimes and Hacking (4 cr.) — Encompasses in-depth exploration of various methods for attacking and defending a network. Explores network security concepts from the viewpoint of hackers and their attack methodologies. Includes topics about hackers, attacks, Intrusion Detection Systems (IDS), malicious code, computer crime and industrial espionage. Prerequisite/Corequisite: ITN 208 and ITN 260. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITN 263: Internet/Intranet Firewalls and Ecommerce Security (4 cr.) — Gives an in-depth exploration of firewalls, Web security, and e-commerce security. Explores firewall concepts, types, topology and the firewall's relationship to the TCP/IP protocol. Includes client/server architecture, the Web server, HTML, and HTTP in relation to Web security, and digital certification D.509, and public key infrastructure (PKI). Prerequisite/Corequisite: ITN 208 and ITN 260. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITN 267: Legal Topics in Network Security (4 cr.) — Conveys an in-depth exploration of the civil and common law issues that apply to network security. Explores statutes, jurisdictional, and constitutional issues related to computer crimes and privacy. Includes rules of evidence, seizure and evidence handling, court presentation and computer privacy in the digital age. Lecture 3-4 hours per week.

ITN 275: Incident Response and Computer Forensics (4 cr.) — Prepares the student for a role on an organizational IT support staff where the need for resolving computer incidents is becoming increasingly common. Includes legal and ethical issues of search and seizure of computer and peripheral storage media leading to laboratory exercises examining computers configured with mix of both simulated criminal and other activities which are not criminal in nature, but do violate scenario-driven organizational policy. Requires the student to make choices/recommendations for further pursuit of forensics evidence gathering and analysis. Students will select and gather the utilities and procedures necessary for a court-acceptable forensics toolkit which will then be used to gather and examine specially configured desktop computers. Students will then participate in a mock court proceeding using the collected evidence. Pre/Corequisite: ITN 208 and ITN 260. Lecture 2-3 hours. Laboratory 2 hours. Total 4-5 hours per week.

Information Technology Programming

ITP 120: Java Programming I (3 cr.) — Entails instruction in fundamentals of object-oriented programming using Java. Emphasizes program construction, algorithm development, coding, debugging, and documentation of console and graphical user interface applications. Prerequisite: Recommended IPT 100 or ITP 102. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITP 140 Client Side Scripting (3 cr.) — Provides instruction in fundamentals of Internet application design, development, and deployment using client side scripting language(s). Prerequisites: Recommended IPT 100, ITD 110 and a programming language or equivalent experience. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITP 220: Java Programming II (3 cr.) — Imparts instruction in application of advanced object-oriented techniques to application development using Java. Emphasizes database connectivity, inner classes, collection classes, networking, and threads. Prerequisite: Recommended ITP 120. Lecture 3- 4 hours. Laboratory 0-2 hours. Total 3-5 hours per week.

ITP 251: Systems Analysis and Design (3 cr.) — Focuses on application of information technologies (IT) to system life cycle methodology, systems analysis, systems design, and system implementation practices. Covers methodologies related to identification of information requirements, feasibility in the areas of economic, technical and social requirements, and related issues are included in course content. Software applications may be used to enhance student skills. Lecture 3-4 hours. Laboratory 0-2 hours. Total 3-5 hours per week. Approved transfer elective.

ITP 258: Systems Development Project (3 cr.) — Provides instruction in application of life cycle system development methodology using a case study which incorporates feasibility study system analysis, system design, program specification, and implementation planning. Course project assignment(s) will have students perform as members of system development teams. Lecture 3-4 hours per week.

LEGAL ADMINISTRATION

LGL 110: Introduction to Law and the Legal Assistant (3 cr.) — Introduces various areas of law in which a legal assistant may be employed. Includes study of the court system (Virginia and federal) as well as a brief overview of criminal law, torts, domestic relations, evidence, ethics, the role of the legal assistant, and other areas of interest. Lecture 3 hours per week. Offered every fall semester.

LGL 117: Family Law (3 cr.) — Studies elements of a valid marriage, grounds for divorce and annulment, separation, defenses, custody, support, adoptions, and applicable tax consequences. Includes property settlement, pre-nuptial and ante-nuptial agreements, pleadings, and rules of procedure. May include specific federal and Virginia consumer laws. Lecture 3 hours per week.

LGL 125: Legal Research (3 cr.) — Provides an understanding of various components of a law library, and emphasizes research skills through the use of digests, encyclopedias, reporter systems, codes, Sheppard's Citations, ALR and other research tools. May include overview of computer applications and writing projects. Lecture 3 hours per week. Offered every fall semester.

LGL 126: Legal Writing (3 cr.) — Studies proper preparation of various legal documents, including legal memoranda, letters, and pleadings. Involves practical applications. May include case and appellate briefs. Prerequisite: ENG 111 or permission of instructor. Lecture 3 hours per week. Offered every spring semester.

LGL 210: Virginia and Federal Procedure (3 cr.) — Examines the rules of procedure in Virginia and federal court systems, including the Federal Rules of Civil Procedure and the Rules of Practice and Procedure in the District Court, Circuit Court, Court of Appeals, and Supreme Court of Virginia. Lecture 3 hours per week.

LGL 216: Trial Preparation and Discovery Practice (3 cr.) — Examines the trial process, including the preparation of a trial notebook, pretrial motions, and orders. May include preparation of interrogatories, depositions, and other discovery tools used in assembling evidence in preparation for the trial or an administrative hearing. Lecture 3 hours per week.

LGL 217: Trial Practice and the Law of Evidence (3 cr.) — Introduces civil and criminal evidence, including kinds, degrees and admissibility of evidence. Studies methods and techniques of evidence acquisition. Emphasizes Virginia and federal rules of evidence. Focuses on the elements and various problems associated with the trial of a civil or criminal case. Lecture 3 hours per week.

LGL 230: Legal Transactions (3 cr.) — Presents an in-depth study of general contract law, including formation, breach, enforcement, and remedies. May include an overview of UCC sales, commercial paper, and collections. Lecture 3 hours per week. Offered every other fall semester.

LGL 235: Legal Aspects of Business Organizations (3 cr.) — Studies fundamental principles of agency law and the formation of business organizations. Includes sole proprietorships, partnerships, corporation, limited liability companies, and other business entities. Reviews preparation of the documents necessary for the organization and operation of businesses. Lecture 3 hours per week.

MARKETING

MKT 100: Principles of Marketing (3 cr.) — Presents principles, methods, and problems involved in marketing to consumers and organizational buyers. Discusses problems and policies connected with distribution and sale of products, pricing, promotion, and buyer motivation. Examines variations of marketing research, legal, social, ethical e-Commerce, and international considerations in marketing. Lecture 3 hours per week. Approved transfer elective. Offered every fall and spring semester.

MATHEMATICS

MTH 02: Arithmetic (3 cr.) — Covers arithmetical principles and computations including whole numbers, fractions, decimals, percents, measurement, graph interpretation, geometric forms, and applications. Develops the mathematical proficiency necessary for selected curriculum entrance. Credits not applicable toward graduation. Variable hours per week. Offered every semester.

MTH 03: Algebra I (3 cr.) — Covers the topics of Algebra I including real numbers, equations and inequalities, exponents, polynomials, Cartesian coordinate system, rational expressions, and applications. Develops the mathematical proficiency necessary for selected curriculum entrance. Credits not applicable toward graduation. Prerequisite: Placement recommendation for MTH 03 or satisfactory completion of MTH 02. Variable hours per week. Offered every semester.

MTH 04: Algebra II (3 cr.) — Expands upon the topics of Algebra I including rational expressions, radicals and exponents, quadratic equations, systems of equations, and applications. Develops the mathematical proficiency necessary for selected curriculum entrance. Credits not applicable toward graduation. Prerequisite: Placement recommendation for MTH 04 or satisfactory completion of MTH 03. Variable hours per week. Offered every semester.

MTH 103-104: Applied Technical Mathematics I-II (3 cr.) (3 cr.) — Presents a review of arithmetic, elements of algebra, geometry, and trigonometry. Directs applications to specialty areas. Prerequisites: a placement recommendation for MTH 103 and one unit of high school mathematics or equivalent. Lecture 3 hours per week. MTH 104 offered every fall semester.

MTH 115-116 Technical Mathematics I-II (3 cr.) (3 cr.) — Presents algebra through exponential and logarithmic functions, trigonometry, vectors, analytic geometry, and complex numbers. Prerequisites: a placement recommendation for MTH 115 and Algebra I and Geometry, or Algebra I and Algebra II, or equivalent. Lecture 3 hours per week.

MTH 120: Introduction to Mathematics (3 cr.) — Introduces number systems, logic, basic algebra, and descriptive statistics. Prerequisites: Placement recommendation for MTH 120 or completion of MTH 02. (Intended for occupational/ technical programs.) Lecture 3 hours per week. Offered every fall and spring semester.

MTH 151: Mathematics for the Liberal Arts I (3 cr.) — Presents topics in sets, logic, numeration systems, geometric systems, and elementary computer concepts. Prerequisite: Placement recommendation for MTH 151 or satisfactory completion of MTH 03 and MTH 04. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

MTH 152: Mathematics for the Liberal Arts II (3 cr.) — Presents topics in functions, combinatorics, probability, statistics and algebraic systems. Prerequisite: Satisfactory completion of or placement beyond MTH 03 and MTH 04. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

MTH 163: Pre-Calculus I (3 cr.) — Presents college algebra, matrices, and algebraic, exponential, and logarithmic functions. Prerequisite: Placement recommendation for MTH 163 or satisfactory completion of MTH 03 and MTH 04. (Credit will not be awarded for both MTH 163 and MTH 166.) Lecture 3 hours per week. Approved transfer elective. Offered every semester.

MTH 164: Pre-Calculus II (3 cr.) — Presents trigonometry, analytic geometry, and sequences and series. Prerequisite: Placement recommendation for MTH 164 or satisfactory completion of MTH 163. (Credit will not be awarded for both MTH 164 and MTH 168.) Lecture 3 hours per week. Approved transfer elective. Offered every semester.

MTH 173: Calculus with Analytic Geometry I (5 cr.) — Presents analytic geometry and the calculus of algebraic and transcendental functions including the study of limits, derivatives, differentials, and introduction to integration along with their applications. Designed for mathematical, physical, and engineering sci-

ence programs. Prerequisite: Placement recommendation for MTH 173 or satisfactory completion of MTH 164. (Credit will not be awarded for more than one of MTH 173, MTH 175, or MTH 273.) Lecture 4-5 hours per week. Approved transfer elective. Offered every fall semester.

MTH 174: Calculus with Analytic Geometry II (5 cr.) — Continues the study of analytic geometry and the calculus of algebraic and transcendental functions including rectangular, polar, and parametric graphing, indefinite and definite integrals, methods of integration, and power series along with applications. Designed for mathematical, physical, and engineering science programs. Prerequisite: MTH 173 or equivalent. (Credit will not be awarded for more than one of MTH 174, MTH 176, or MTH 274.) Lecture 4-5 hours per week. Approved transfer elective. Offered every spring semester.

MTH 180: Finite Mathematics (3 cr.) — Covers systems of linear equations, matrices, linear programming, Counting techniques, probability theory, game theory and the mathematics of finance. Prerequisite: a placement recommendation for MTH 180 and Algebra I, Algebra II and Geometry or equivalent. Lecture 3 hours per week. Approved transfer elective.

MTH 181: Finite Mathematics I (3 cr.) — Introduces set theory, systems of linear equations, matrices linear programming, probability, and game theory. Prerequisites: a placement recommendation for MTH 181 and Algebra I, Algebra II, and Geometry or equivalent. Lecture 3 hours per week. Approved transfer elective.

MTH 182: Finite Mathematics II (3 cr.) — Introduces logic, counting techniques, probability and statistics, and mathematics of finance. Prerequisite: MTH 181 or equivalent. Lecture 3 hours per week. Approved transfer elective.

MTH 240: Statistics (3 cr.) — Presents an overview of statistics, including descriptive statistics, elementary probability, probability distribution, estimation, hypothesis testing, and correlation and regression. (Credit will not be awarded for both MTH 240 and MTH 241.) Prerequisite: Placement recommendation for MTH 240 or satisfactory completion of MTH 163. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

MTH 271 Applied Calculus I (3 cr.) — Presents limits, continuity, differentiation of algebraic and transcendental functions with applications, and an introduction to integration. Prerequisite: MTH 163 or MTH 166 or equivalent. (Credit will not be awarded for both MTH 270 and MTH 271.) Lecture 3 hours per week. Approved transfer elective. Offered every fall and spring semester.

MTH 272: Applied Calculus II (3 cr.) — Covers techniques of integration, multivariable calculus, and an introduction to differential equations. Prerequisite: MTH 271 or equivalent. Lecture 3 hours per week. Approved transfer elective. Offered every spring semester.

MTH 273: Calculus I (4 cr.) — Presents topics in differential calculus of one variable including the theory of limits, derivatives, differentials, definite and indefinite integrals and applications to algebraic and transcendental functions. Designed for mathemati-

cal, physical, and engineering science programs. Prerequisites: a placement recommendation for MTH 273 and four units Of high school mathematics including Algebra I, Algebra II, Geometry and Trigonometry Or equivalent. (Credit will not be awarded for more than one of MTH 173, MTH 175, or MTH 273). Approved transfer elective.

MEDICAL LABORATORY

MDL 105: Phlebotomy (3 cr.) — Introduces basic medical terminology, anatomy, physiology, components of health care delivery and clinical laboratory structure. Teaches techniques of specimen collection, specimen handling, and patient interactions. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Offered every fall and spring semester.

MDL 106: On-Site Training: Phlebotomy (4 cr.) — A clinical experience designed to provide the student with the entry-level competency in routine blood collecting techniques used in the clinical laboratory. Laboratory 12 hours. Total 12 hours per week. Offered every fall, spring and semesters.

MECHANICAL ENGINEERING

MEC 100 Introduction to Engineering Technology (2 cr.) — Introduces professional fields of engineering technology. Covers the work of the engineering technologist, professional ethics, division of industrial practice, and engineering problem solving with hand calculator and computer applications. Lecture 1 hour. Laboratory 2 hours. Total 3 hours per week.

MEC 112 Processes of Industry (3 cr.) — Analyzes the processes of manufacturing products from materials for industry/engineering. Includes machining, casting, forming, molding, hot/cold working, chipless machining, and welding. Addresses quality assurance and inspection procedures. Lecture 3 hours per week.

MUSIC

MUS 101-102: Basic Musicianship I-II (3 cr.) (3 cr.) — Provides exercises leading to knowledge and skill in the rudiments of music. Includes rhythmic notation as well as scales, keys, and intervals along with exercises in sight reading and ear training. Lecture 3 hours per week. Approved transfer elective. MUS 101 offered every semester.

MUS 121-122: Music Appreciation I-II (3 cr.) (3 cr.) — Increases the variety and depth of the student's interest, knowledge, and involvement in music and related cultural activities. Acquaints the student with traditional and twentieth century music literature, emphasizing the relationship music has as an art form with man and society. Increases the student's awareness of the composers and performers of all eras through listening and concert experiences. Lecture 3 hours per week. Need not be taken in sequence. Approved transfer electives. MUS 121 offered every fall semester. MUS 122 offered every spring semester.

MUS 125: American Music (3 cr.) — Presents the development of music in America from early colonists to the present, in light of philosophical, political, geographical, and sociological developments. Lecture 3 hours per week. Approved transfer elective. Offered every fall semester.

MUS 225: The History of Jazz (3 cr.) — Studies the underlying elements of jazz, concentrating on its cultural and historical development from earliest stages to the present. No previous knowledge of music is required. Lecture 3 hours per week. Approved transfer elective. Offered every spring semester.

NATURAL SCIENCE

NAS 150: Human Biology (3 cr.) — Surveys the structure and function of the human body. Applies principally to students who are not majoring in the health or science fields. Lecture 3 hours per week. Approved transfer elective. Offered every fall and summer semester.

NAS 161-162: Health Science I-II (4 cr.) (4 cr.) — Presents an integrated approach to human anatomy and physiology, microbiology, and pathology. Includes chemistry and physics as related to health sciences. Lecture 3 hours. Recitation and laboratory 3 hours. Total 6 hours per week. Approved transfer electives. Offered every semester.

NURSE AIDE

HCT 101 Health Care Technician I (4 cr) — Teaches basic care skills with emphasis on physical, social, emotional, and spiritual needs of patients. Covers procedures, communications and interpersonal relations; observation, charting and reporting; care planning, safety and infection control; anatomy and physiology, nutrition and patient feeding; ethics, death and dying. Prepares multi-skilled health care workers to care for patients of various ages with special emphasis on geriatric nursing, home health, long and short term care facilities. Lecture 8 hours per week for eight weeks. Pre-requisite: Required reading, writing, and math placement scores or developmental courses. Offered every fall, spring and summer semester.

HCT 102 Health Care Technician II (3 cr.) — Applies theory through laboratory experience for health care technicians to work in home health, long and short term facilities. Co-requisite: HCT 101. Lecture 2 hours per week for eight weeks. Laboratory 11 hours per week for eight weeks. Total 13 hours per week for eight weeks. Offered every fall, spring and summer semester.

HCT 110 Therapeutic Communication in the Health Care Setting (3 cr.) — Develops therapeutic relationship, communication and culture, problem solving electronic communication, techniques in therapeutic communication and blocks to therapeutic communication. Addresses assertiveness, anger, and managing team conflict. Lecture 3 hours per week. Pre-requisite: Required reading, writing, and math placement scores or developmental courses. Offered every fall, spring and summer semester.

NURSING

NUR 100 Introduction to Nursing and Health (2 cr.) — Introduces concepts of nursing and health. Includes historical and cultural aspects, legal, and ethical responsibilities and an overview of health and the health care delivery system. Lecture 2 hours per week. Offered every fall and spring semester.

NUR 110 Introduction to Nursing & Health (3 cr.) — Introduces concepts of Nursing and Health. Includes historical and cultural aspects, legal and ethical responsibilities and an overview of health and the health care delivery system. Includes test-taking skills, concepts of man, health, environment, nursing; nursing assessment and skills; nutrition; therapeutic communication; nursing process; teaching- learning process and the role of the nurse. Lecture 5 hours per week for five weeks. Laboratory 30 hours per week for five weeks. Total 35 hours per week for five weeks. Prerequisite: Admission to AD Nursing Program. Offered every summer semester.

NUR 111 Nursing I (7 cr.) — Introduces nursing principles including concepts of health and wellness and the nursing process. Develops nursing skills to meet the biopsychosocial needs of individuals across the lifespan. Includes math computational skills, basic computer instruction related to the delivery of nursing care, communication skills, introduction to nursing, health, the health care system, legal aspects of nursing care, diagnostic testing, assessment, teaching and learning, asepsis, body mechanics and safety, personal care, activity/rest, wound care, nutrition, elimination, oxygenation, fluid and electrolytes, pain control, medication administration, aging populations and pre/post operative care. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 4 hours. Laboratory 9 hours. Total 13 hours per week. Prerequisite: Admission to Commonwealth Nursing Program. Offered every fall and spring semester in Commonwealth Nursing Program

NUR 112 Nursing II (8 cr.) — Focuses on the nursing care of adults experiencing changes along the health/illness continuum that are common, well-defined, and have predictable outcomes. Includes math computational skills, basic computer instruction related to the delivery of nursing care; acid-base balance, gastrointestinal, genitourinary, musculoskeletal, immunology, oncology, sensor-neural, infectious diseases, endocrine, respiratory and blood disorders and care of the dying client. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 4 hours. Laboratory 12 hours. Total 16 hours per week. Prerequisite: NUR 111. Offered every fall and spring semester in Commonwealth Nursing Program.

NUR 113 First Level Nursing I (8 cr.) — Focuses on the assessment and nursing care of individuals across the lifespan experiencing common, well-defined, and predictable alterations along the health continuum. Includes math computational skills, basic computer instruction related to the delivery of nursing care; medication administration; communication techniques; introduction to child health; care of the perioperative client; and methods and techniques used in the assessment of the respiratory, cardiac, gastrointestinal and genitourinary systems. Lecture 4 hours. Laboratory 12

hours. Total 16 hours per week. Prerequisite: NUR 110. Offered every fall semester.

NUR 114 Geriatric Nursing (3 cr.) — Presents theoretical and clinical nursing aspects of the aging population. Includes the aging process, psychological aspects, common age-related disorders, pharmacologic aspects, care facilities, and relationships between elders and caregivers. Lecture 3 hours. Laboratory 0 hours. Total 3 hours per week. Pre-requisite: NUR 110. Offered every summer, fall, and spring semester.

NUR 115 LPN Transition (3 cr.) — Introduces the role of the registered nurse through concepts and skill development in the discipline of professional nursing. This course serves as a bridge course for licensed practical nurses and is based upon individualized articulation agreements, mobility exams, or other assessment criteria as they relate to local programs and service areas. Includes math computational skills and basic computer instruction related to the delivery of nursing care. Lecture 2 hours. Laboratory 1 hour. Total 3 hours per week. Prerequisite: NAS 161/162, ITE 115. Offered every fall and spring semester.

NUR 118 First Level Nursing II (8 cr.) — Focuses on the nursing care of individuals and/or families throughout the lifespan experiencing changes along the health/ illness continuum that are common, well-defined, and have predictable outcomes. Content includes math computational skills, basic computer instruction related to the delivery of nursing care; assessment and nursing care of the child; nursing care of productive health/disorders, pre/intra/postnatal child bearing family and musculoskeletal and neurological disorders. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 4 hours. Laboratory 12 hours. Total 16 hours per week. Prerequisite: NUR 113 Offered every spring semester.

NUR 135 Drug Dosage Calculations (2 cr.) — Focuses on apothecary, metric, household conversion in medication dosage calculation for adult and pediatric clients. Provides a practical approach to learning to calculate and prepare medications and solutions. Includes calculating intravenous flow rates. Lecture 1-2 hours per week. Commonwealth Nursing Program (1 cr.) and is offered every fall and spring semesters. Prerequisite: MTH 02 or equivalent. Offered every summer, fall, and spring semester.

NUR 142 Fundamentals of Surgical Care II (3 cr.) — Introduces principles of wound healing including types, stages, and complications; types, preparation and care of surgical supplies, packing, dressings, catheters, drains, tubes, supplies, and equipment; classifications of instruments, sutures and needles. Describes responsibilities related to the scrub and circulating roles. Provides students practical experience in the operating room. Prerequisite: Licensed Practical Nurse. Lecture 4 hours per week for eight weeks. Laboratory 6 hours per week for eight weeks. Total 10 hours per week for eight weeks. Prerequisite: Licensed Practical Nurse. Offered fall and spring semesters.

NUR 202 Medical/Surgical Nursing I (4 cr.) — Focuses on the care of individuals/families requiring complex or surgical treatment. Uses all components of the nursing process with increasing degrees of skill. Includes math computational skills and basic com-

puter instruction related to the delivery of nursing care; cardiac, neurological, renal, burn disorders and clients experiencing shock. Provides supervised learning experiences in college nursing laboratories and/or cooperating agencies. Lecture 2 hours. Laboratory 6 hours. Total 8 hours per week. Prerequisite: NUR 112. Offered every fall and spring semester in Commonwealth Nursing Program.

NUR 208 Acute Medical-Surgical Nursing (5 cr.) — Focuses on the use of nursing process to provide care to individuals/families with acute medical or surgical problems or to prevent such problems. Includes math computational skills and basic computer instruction related to the delivery of nursing care. Provides supervised learning experiences in cooperating agencies. Lecture 2 hours. Laboratory 9 hours. Total 11 hours per week. Commonwealth Nursing Program offered spring and summer semesters. Prerequisite: NUR 118 or equivalent. Offered every fall semester.

NUR 214 Second Level Nursing IV (8 cr.) — Emphasizes complex nursing care of individuals, families, and/or groups in various stages of development who are experiencing chronic disorders related to their biopsychosocial needs. Uses all components of the nursing process with increasing degrees of skill. Includes math computation skills, basic computer instruction related to the delivery of nursing care related to chronic disorders throughout the lifespan including immunological; hematological; infectious, sensory; burn; integumentary; sensory, and neurological disorders. Provides supervised learning experience in college nursing laboratories and/or cooperating agencies. Lecture 4 hours. Laboratory 12 hours. Total 16 hours per week. Prerequisite: NUR 208. Offered every spring semester.

NUR 226 Health Assessment (2 cr.) — Introduces the systematic approach to obtaining a health history and performing a physical assessment. Lecture 1 hour. Laboratory 3 hours. Total 4 hours per week. Prerequisite: NUR 111. Offered every fall and spring semester in Commonwealth Nursing Program.

NUR 245 Maternal/Newborn Nursing (3 cr.) — Develops nursing skills in caring for families in the antepartum, intrapartum, and post-partum periods. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: NUR 112. Offered every fall and spring semester in Commonwealth Nursing Program.

NUR 246 Parent/Child Nursing (3 cr.) — Develops nursing skills in caring for both well and ill children in a variety of settings. Emphasizes theories of growth and development and the family as a unit. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: NUR 112. Offered every fall and spring semester in Commonwealth Nursing Program.

NUR 247 Psychiatric/Mental Health Nursing (3 cr.) — Develops nursing skills in caring for individuals, families, and/or groups with mental health needs. Explores various treatment models, diagnostic categories, and rehabilitative measures. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: NUR 118 or equivalent. Offered every fall semester. Offered every summer semester in Commonwealth Nursing Program.

NUR 254 Dimensions of Professional Nursing (2 cr.) — Explores the role of the professional nurse. Emphasizes nursing organizations, legal and ethical implications, and addresses trends in management and organizational skills. Explores group dynamics, relationships, conflicts, and leadership styles. Lecture 2 hours per week. Prerequisite: NUR 208 or equivalent. Offered every spring semester. Offered every spring and summer semester in Commonwealth Nursing Program.

NUR 280 Introduction to Perioperative Nursing (4 cr.) — Introduces the surgical environment, ethical and legal patient and employee rights, preparation of the patient for surgery, surgical conscience, and the operative nurse's role and responsibilities. Includes laboratory and clinical experience. Lecture 4 hours a week for eight weeks. Laboratory 12 hours a week for eight weeks. Total 16 hours per week for eight weeks. Prerequisite: Licensed Practical Nurse. Co-requisite: NUR 142. Offered fall and spring semesters.

NUR 281 Advanced Perioperative Nursing (5 cr.) — Focuses on the technical and clinical aspects of perioperative nursing, including perioperative pharmacology, risk management and quality improvement, monitoring and documentation, and standard precautions. Includes laboratory and clinical experience. Lecture 4 hours per week for eight weeks. Laboratory 18 hours per week for eight weeks. Total 22 hours per week for eight weeks. Prerequisite: NUR 280. Offered every other spring and summer semester.

PHILOSOPHY

PHI 100: Introduction to Philosophy (3 cr.) — Presents an introduction to philosophical problems and perspectives with emphasis on the systematic questioning of basic assumptions about meaning, knowledge, reality, and values. Lecture 3 hours per week. Approved transfer elective.

PHI 101-102: Introduction to Philosophy I-II (3 cr.) (3 cr.) — Introduces a broad spectrum of philosophical problems and perspectives with an emphasis on the systematic questioning of basic assumptions about meaning, knowledge, reality, and values. Lecture 3 hours per week. Must be taken in sequence. Approved transfer electives. PHI 101 offered every fall semester. PHI 102 offered every spring semester.

PHI 111: Logic I (3 cr.) — Introduces inductive and deductive reasoning, with an emphasis on common errors and fallacies. Lecture 3 hours per week.

PHI 200 The History of Western Philosophy (3 Cr.) — Offers a brief historical survey of major philosophers from the pre-Socratics to the present. Lecture 3 hours per week.

PHI 220: Ethics (3 cr.) — Provides a systematic study of representative ethical systems. Lecture 3 hours per week.

PHI 226: Social Ethics (3 cr.) — Provides a critical examination of moral problems and studies the application of ethical concepts and principles to decision-making. Topics may include abortion, capital punishment, euthanasia, man and the state, sexuality, war and peace, and selected issues of personal concern. Lecture 3 hours per week. Approved transfer elective.

PHI 227: Bio-Medical Ethics (3 cr.) — Examines the ethical implications of specific biomedical issues in the context of major ethical systems. Lecture 3 hours per week. Approved transfer elective.

PHOTOGRAPHY

PHT 264: Digital Photography (3 cr.) — Teaches theory and practice of digital photography. Emphasizes use of digital cameras in studio and on location. Teaches advanced techniques of image editing. Provides training in digital image transmission from remote locations. Prerequisites: PHT 101 and ART 283 or PHT 135. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Offered every semester.

PHYSICAL EDUCATION

PED 103-104: Aerobic Fitness I-II (2 cr.) (1 cr.) — Develops cardiovascular fitness through activities designed to elevate and sustain heart rates appropriate to age and physical condition. Lecture 1-2 hours. Lab 0-2 hours. Total 1-3 hours per week. Approved transfer electives. PED 103 offered every semester.

PED 109: Yoga (2 cr.) — Focuses on the forms of yoga training emphasizing flexibility. Lecture 1-2 hours per week. Laboratory 0-2 hours per week. Total 1-3 hours per week. Approved transfer elective. Offered every semester.

PED 111-112: Weight Training I-II (1 cr.) (1 cr.) — Focuses on muscular strength and endurance training through individualized workout programs. Teaches appropriate use of weight training equipment. Lecture 1-2 hours. Lab 0-2 hours. Total 1-3 hours per week. Approved transfer electives. PED 111 offered every semester. PED 112 offered every fall and spring semester.

PED 116: Lifetime Fitness and Wellness (2 cr.) — Provides a study of fitness and wellness and their relationship to a healthy lifestyle. Defines fitness and wellness, evaluates the student's level of fitness and wellness, and motivates the student to incorporate physical fitness and wellness into daily living. A personal fitness/wellness plan is required for the 2 credit course. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-4 hours per week. Approved transfer elective. Offered every fall and spring semester.

PED 117: Fitness Walking (1 cr.) — Teaches content and skills needed to design, implement, and evaluate an individualized program of walking, based upon fitness level. Laboratory 2 hours per week. Offered every fall semester.

PED 128: Horseback Riding (2 cr.) — Presents riding seats and preparation for riding, care and grooming of a horse, selection, use and care of equipment, and safety. Prerequisite appropriate riding skills or instructor's permission for advanced course. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week. Approved transfer elective. Offered every semester.

PED 129: Self-Defense (2 cr.) — Examines history, techniques, and movements associated with self-defense. Introduces the skills and methods of self-defense emphasizing mental and physical discipline. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week. Approved transfer elective. Offered every semester.

PED 133-134: Golf I-II (1 cr.) (1 cr.) — Teaches basic skills of golf, rules, etiquette, scoring, terminology, equipment selection and use, and strategy. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week. PED 133 is offered every semester.

PED 135-136: Bowling I-II (1 cr.) (1 cr.) — Teaches basic bowling skills and techniques, scoring, rules, etiquette & terminology. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week. Approved transfer electives. PED 135 offered every summer and fall semester. PED 136 offered every spring semester.

PED 137-138: Martial Arts I-II (2 cr.) (2 cr.) — Emphasizes forms, styles, and techniques of body control, physical and mental discipline, and physical fitness. Presents a brief history of development of martial arts theory and practice. Lecture 1-2 hours. Laboratory 1-2 hours. Total 1-3 hours per week. Approved transfer electives. PED 137 and PED 138 are offered every semester.

PED 150: Soccer (1 cr.) — Emphasizes soccer skills and techniques, strategies, rules, equipment, and physical conditioning. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week. Approved transfer elective. Offered every fall and spring semester.

PED 152: Basketball (1 cr.) — Introduces basketball skills, techniques, rules, and strategies. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week.

PED 154: Volleyball (1 cr.) — Introduces skills, techniques, strategies, rules, and scoring. Lecture 1-2, Lab 0-2, Total 1-3 hours per week. Approved transfer elective. Offered every semester.

PED 156 Softball (2 cr.) — Emphasizes skills, techniques, strategies, rules. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week. Offered every spring semester.

PED 160: Modern Dance (2 cr.) — Teaches the basic techniques of creative dance. Skills include self-expression, contemporary routines, dance forms, and basic choreography. Lecture 1-2 hours. Laboratory 0-2 hours. Total 1-3 hours per week. Approved transfer elective. Offered every spring semester.

PED 187: Backpacking (2 cr.) — Focuses on the preparation for backpacking trips, equipment and clothing selection, personal and group safety, ecology, and physical conditioning. Includes field experience. Lecture 1-2, Lab 0-2, Total 1-3 hours per week. Offered every fall and spring semester.

PED 206: Sports Appreciation (2 cr.) — Focuses on the history, trends, rules, methods, strategy, and terminology of selected sports activities. Provides student awareness as a spectator and/or participant. Lecture 2 hours per week. Approved transfer elective. Offered every spring semester.

PHYSICS

PHY 201-202: General College Physics I-II (4 cr.) (4 cr.) — Teaches fundamental principles of physics. Covers mechanics, thermodynamics, wave phenomena, electricity and magnetism, and selected topics in modern physics. Prerequisite: MTH 163 or equivalent. Lecture 3 hours. Laboratory 3 hours. Total 6 hours per week.

Approved transfer electives. PHY 201 is offered every fall semester. PHY 202 is offered every spring semester.

POLITICAL SCIENCE

PLS 135: American National Politics (3 cr.) — Teaches political institutions and processes of the national government of the United States. Focuses on the Congress, presidency, and the courts, and on their inter-relationships. Gives attention to public opinion, suffrage, elections, political parties, interest groups, civil rights, domestic policy, and foreign relations. Lecture 3 hours per week. Approved transfer elective. Offered every fall semester.

PLS 136: State and Local Politics (3 cr.) — Teaches structure, powers and functions of state and local government in the United States. Lecture 3 hours per week. Approved transfer elective. Offered every spring semester.

PLS 241: International Relations (3 cr.) — Teaches geographic, demographic, economic, ideological, and other factors conditioning the policies of countries and discusses conflicts and their adjustment. Lecture 3 hours per week. Offered every semester.

PRACTICAL NURSING

PNE 130 Maternity Nursing (3 cr.) — Teaches knowledge, understanding, and nursing skills related to the needs of women and other family members during all phases of childbearing. Presents abnormal conditions of pregnancy. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: Admission to Practical Nursing Program. Offered every fall semester.

PNE 141-142 Nursing Skills I-II (3 cr.) (3 cr.) — Studies principles and procedures essential to the basic nursing care of patients. Lecture 2 hours. Laboratory 3 hours. Total 5 hours per week. Prerequisite: Admission to Practical Nursing Program or equivalent. PNE 141 offered every summer semester in Vocational Health Care; PNE 142 offered every fall semester.

PNE 145 Trends in Practical Nursing (1 cr.) — Studies the role of the Licensed Practical Nurse. Covers legal aspects, organizations, and opportunities in practical nursing. Assists students in preparation for employment. Lecture 1 hour per week. Prerequisite: PNE 162. Offered every spring semester.

PNE 158 Mental Health and Psychiatric Nursing (1 cr.) — Recognizes emotional needs of patients. Provides knowledge of the role that emotions play. Enables students to understand their own behavior as well as patient behavior. Lecture 1 hour per week. Prerequisite: PNE 162. Offered every spring semester.

PNE 161 Nursing in Health Changes I (6 cr.) — Focuses on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 3 hours. Laboratory 9 hours. Total 12 hours per week. Prerequisite: Admission to Practical Nursing Program. Offered every summer semester.

PNE 162 Nursing in Health Changes II (11 cr.) — Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 5 hours. Laboratory 18 hours. Total 23 hours per week. Prerequisite: PNE 161 or equivalent. Offered every fall semester.

PNE 164 Nursing in Health Changes IV (10 cr.) — Continues the focus on nursing situations and procedures necessary to assist individuals in meeting special needs related to human functions. Lecture 5 hours. Laboratory 15 hours. Total 20 hours per week. Prerequisite: PNE 162. Offered every spring semester.

PSYCHOLOGY

PSY 115: Health Psychology (3 cr.) — Studies the psychology of healthy behavior. Applies psychological principles to preventive health care. Covers topics such as exercise, nutrition, stress, lifestyles, and habits. Lecture 3 hours per week. Approved transfer elective. Offered every summer semester.

PSY 120: Human Relations (3 cr.) — Introduces the theory and practice of effective human relations. Increases understanding of self and others and interpersonal skills needed to be a competent and cooperative communicator. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

PSY 200: Principles of Psychology (3 cr.) — Surveys the basic concepts of psychology. Covers the scientific study of behavior, behavioral research methods and analysis, and theoretical interpretations. Includes topics that cover physiological mechanisms, sensation/perception, motivation, learning, personality, psychopathology, therapy, and social psychology. Lecture 3 hours per week. Students who take PSY 200 cannot receive credit for either PSY 201 or PSY 202. Students who take either PSY 201 or PSY 202 cannot receive credit for PSY 200. Approved transfer elective. Offered every semester.

PSY 211: Research Methodology for Behavioral Sciences (3 cr.) — Introduces the principles and processes of various research procedures for applying the scientific method to understanding behavior. Includes preparation for conducting, understanding and interpreting laboratory and field studies; documenting principles through research; and applying critical assessment to generic research. Lecture 3 hours per week. Prerequisite: Completion of PSY 200 or PSY 201, completion of ENG 112, completion of MTH 04 or a placement for either MTH 163 or MTH 180 or permission of the instructor. Approved transfer elective. Offered every fall and spring semester.

PSY 215: Abnormal Psychology (3 cr.) — Explores historical views and current perspectives of abnormal behavior. Emphasizes major diagnostic categories and criteria, individual and social factors of maladaptive behavior, and types of therapy. Includes methods of clinical assessment and research strategies. Prerequisite: PSY 200 or PSY 201. Lecture 3 hours per week. Approved transfer elective. Offered every fall and spring semester.

PSY 216: Social Psychology (3 cr.) — Examines individuals in social contexts, their social roles, group processes and intergroup relations. Includes topics such as small group behavior, social behavior, social cognition, conformity, attitudes, and motivation. Prerequisite: PSY 200 or PSY 201. Lecture 3 hours per week. Approved transfer elective. Offered every summer semester.

PSY 225: Theories of Personality (3 cr.) — Studies the major personality theories and their applications. Includes psychodynamic, behavioral, cognitive, and humanistic perspectives. Prerequisite: PSY 200 or PSY 201. Lecture 3 hours per week. Approved transfer elective. Offered every spring semester.

PSY 226: Introduction to Counseling Relationships (3 cr.) — Introduces counseling theories and provides opportunity for their application through role-playing and supervised paraprofessional counseling experiences. Prerequisite: 9 credit hours in Psychology or instructor approval. Lecture 3 hours per week. Approved transfer elective. Offered every fall semester.

PSY 230: Developmental Psychology (3 cr.) — Studies the development of the individual from conception to death. Follows a life-span perspective on the developmental tasks of the person's physical, cognitive, and psychosocial growth. Lecture 3 hours per week. Students cannot receive credit for both PSY 235 and PSY 230. Approved transfer elective. Offered every semester.

PSY 235: Child Psychology (3 cr.) — Studies development of the child from conception to adolescence. Investigates physical, intellectual, social and emotional factors involved in the child's growth. Lecture 3 hours per week. Students cannot receive credit for both PSY 235 and PSY 230. Approved transfer elective. Offered every fall and spring semester.

PSY 255: Psychological Aspects of Criminal Behavior (3 cr.) — Studies psychology of criminal behavior. Includes topics such as violent and non-violent crime, sexual offenses, insanity, addiction, white-collar crime, and other deviant behaviors. Provides a background for law enforcement occupations. Prerequisites: PSY 200 or 201. Lecture 3 hours per week. Approved transfer elective. Offered every fall semester.

PSY 265 Psychology of Men and Women (3 Cr.) — Examines the major determinants of sex differences. Emphasizes psychosexual differentiation and gender identity from theoretical, biological, interpersonal, and sociocultural perspectives. Includes topics such as sex roles, socialization, rape, abuse, and androgyny. Prerequisites: PSY 125, 200, 201 or 202. Lecture 3 hours per week.

PSY 290: Coordinated Internship (3 cr.) — Supervises on-the-job training in selected business, industrial or service firms coordinated by the College. Credit/practice ratio maximum 1:5 hours. May be repeated for credit. Prerequisite: PSY 226. Open only to students in Paraprofessional Counseling Career Studies Certificate program. Variable hours. Approved transfer elective. Offered every spring semester.

PUBLIC ADMINISTRATION

PBS 100 Introduction to Public Administration (3 cr.) — Focuses on principles underlying public administration in federal, state and local government. Examines the role of government, administrative and policy processes, organizational structure, basic problems of management, administrative responsibility, and the future of public administration. Lecture 3 hours per week. Approved transfer elective. Offered every other spring semester.

RELIGION

REL 100: Introduction to the Study of Religion (3 cr.) — Explores various religious perspectives and ways of thinking about religious themes and religious experience. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

REL 200: Survey of the Old Testament (3 cr.) — Surveys books of the Old Testament, with emphasis on prophetic historical books. Examines the historical and geographical setting and place of the Israelites in the ancient Middle East as background to the writings. Lecture 3 hours per week. Approved transfer elective. Offered every other fall semester.

REL 210: Survey of the New Testament (3 cr.) — Surveys books of the New Testament, with special attention upon placing the writings within their historical and geographical setting. Lecture 3 hours per week. Approved transfer elective. Offered every other spring semester.

REL 215: New Testament and Early Christianity (3 cr.) — Surveys the history, literature, and theology of early Christianity in the light of the New Testament. Lecture 3 hours per week. Approved transfer elective. Offered every other fall semester.

REL 216: Life and Teachings of Jesus (3 cr.) — Studies the major themes in the teachings of Jesus of Nazareth as recorded in the Gospels, and examines the events of his life in light of modern biblical and historical scholarship. Lecture 3 hours per week. Approved transfer elective. Offered every other fall semester.

REL 217 Life and Letters of Paul (3 cr.) — Studies the journeys and religious thought of the apostle Paul. Lecture 3 hours per week. Approved transfer elective. Offered every other spring semester.

REL 230: Religions of the World (3 cr.) — Introduces the religions of the world with attention to origin, history, and doctrine. Lecture 3 hours per week. Approved transfer elective. Offered every summer semester.

REL 235: Major Religious Thinkers (3 cr.) — Examines the works of one or more important people in religious thought. Lecture 3 hours per week. Approved transfer elective. Offered every other spring semester.

REL 237: Eastern Religions (3 cr.) — Studies major religious traditions of the East including Hinduism, Buddhism, Confucianism, Taoism, and Zen Buddhism. Includes an analysis of Eastern philosophy and approach to life. Lecture 3 hours per week. Approved transfer elective. Offered every other fall semester.

REL 238: Western Religions (3 cr.) — Studies major traditions of the west that may include, but not limited to Judaism, Zoroastrianism, Christianity, Near East, Greek and Roman, African, Native American, European Pagan, and New Age spirituality. Lecture 3 hours per week. Approved transfer elective. Offered every other spring semester

REL 240: Religions in America (3 cr.) — Surveys various manifestations of religion in the American experience. Emphasizes concepts, problems, and issues of religious pluralism and character of American religious life. Lecture 3 hours per week. Approved transfer elective. Offered every other fall semester

REL 247: History of Christianity (3 cr.) — Surveys the development of Christianity from its origins to the present. Lecture 3 hours per week. Approved transfer elective. Offered every other spring semester.

SOCIOLOGY

SOC 200: Principles of Sociology (3 cr.) — Introduces fundamentals of social life. Presents significant research and theory in areas such as culture, social structure, socialization, deviance, social stratification, and social institutions. Students who take SOC 200 cannot receive credit for either SOC 201 or SOC 202. Students who take either SOC 201 or SOC 202 cannot receive credit for SOC 200. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

SOC 201-202: Introduction to Sociology I-II (3 cr.) (3cr.) — Introduces basic concepts and methods of sociology. Presents significant research and theory in areas such as socialization, group dynamics, gender roles, minority group relations, stratification, deviance, culture, community studies. Includes population, social change, and social institutions (family, education, religion, political system, economic system). Lecture 3 hours per week. Approved transfer electives.

SOC 210: Survey of Physical and Cultural Anthropology (3 cr.) — Examines physical characteristics and lifestyles of human ancestors and present populations. Explores cultures from around the world to study diverse adaptations made by humans. Lecture 3 hours per week. Approved transfer elective. Offered every fall and spring semester.

SOC 211-212: Principles of Anthropology (3 cr.) (3 cr.) — Inquires into the origins, development, and diversification of human biology and human cultures. Includes fossil records, physical origins of human development, human population genetics, linguistics, cultures' origins and variation, and historical and contemporary analysis of human societies. Lecture 3 hours per week. Approved transfer electives.

SOC 215: Sociology of the Family (3 cr.) — Studies topics such as marriage and the family in social and cultural context. Addresses the single scene, dating and marriage styles, child-rearing, husband and wife interaction, single-parent families, alternative life-styles. Lecture 3 hours per week. Approved transfer elective. Offered every spring semester.

SOC 225: Gender and Sex Roles (3 cr.) — Analyzes influence of major social institutions and socialization in shaping and changing sex roles in contemporary society. Examines differential access to positions of public power and authority for men and women. Lecture 3 hours per week. Approved transfer elective. Offered every summer semester.

SOC 245: Sociology of Aging (3 cr.) — Introduces study of aging with special emphasis on later stages of the life cycle. Includes theories of aging, historical and comparative settings, social policy, and future trends of aging. Lecture 3 hours per week. Approved transfer elective. Offered every fall semester.

SOC 246: Death and Society (3 cr.) — Analyzes death and its relationship to social behavior and societal institutions. Focuses attention on types of death, bereavement, funerals, estate planning/inheritance, and the student's own responses to these issues. Lecture 3 hours per week. Approved transfer elective.

SOC 266: Minority Group Relations (3 cr.) — Investigates minorities such as racial and ethnic groups. Addresses social and economic conditions promoting prejudice, racism, discrimination, and segregation. Lecture 3 hours per week. Approved transfer elective. Offered every spring semester.

SOC 268: Social Problems (3 cr.) — Applies sociological concepts and methods to analysis of current social problems. Includes delinquency and crime, mental illness, drug addiction, alcoholism, sexual behavior, population crisis, race relations, family and community disorganization, poverty, automation, wars, and disarmament. Lecture 3 hours per week. Approved transfer elective. Offered every fall and spring semester.

SPANISH

SPA 101-102: Beginning Spanish I-II (4 cr.) (4 cr.) — Introduces understanding, speaking, reading, and writing skills and emphasizes basic Spanish sentence structure. May include an additional hour of oral drill and practice per week. Lecture 4-5 hours per week. Approved transfer electives. SPA 101 and SPA 102 offered every semester.

SPA 150: Spanish for Law Enforcement (3 cr.) — Introduces Spanish to those in the criminal justice field. Emphasizes oral communication and practical first-hand police and justice vocabulary. May include oral drill and practice. Lecture 3 hours per week. Offered every fall semester.

SPA 163: Spanish for Health Professionals I (3 cr.) — Introduces Spanish to those in the health sciences. Emphasizes oral communication and practical medical vocabulary. May include oral drill and practice. Lecture 3 hours per week. Approved transfer elective. Offered every spring semester.

SPA 201-202: Intermediate Spanish I-II (3 cr.) (3 cr.) — Continues to develop understanding, speaking, reading, and writing skills. Prerequisite: SPA 102 or equivalent. May include oral drill and practice. Lecture 3-4 hours per week. May include one additional hour of oral practice per week. Approved transfer electives. SPA 101 offered every fall semester. SPA 102 offered every spring semester.

SPEECH

SPD 100: Principles of Public Speaking (3 cr.) — Applies theory and principles of public address with emphasis on preparation and delivery. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

SPD 110: Introduction to Speech Communication (2-3 cr.) — Examines the elements affecting speech communication at the individual, small group, and public communication levels with emphasis on practice of communication at each level. Lecture 2-3 hours per week. Approved transfer elective. Offered every semester.

SPD 126: Interpersonal Communication (3 cr.) — Emphasizes principles and practical application of effective interpersonal communication behaviors and rhetorical sensitivity within personal, professional and social relationships. Lecture 3 hours per week. Approved transfer elective. Offered every semester.

SPD 229: Intercultural Communication (3 cr.) — Emphasizes the influence of culture on the communication process including differences in values, message systems, and communication rules. Lecture 3 hours per week. Approved transfer elective. Offered every fall semester.

SPD 130 Introduction to the Theatre (3 Cr.) — Surveys the principles of drama, the development of theatre production, and selected plays to acquaint the student with various types of theatrical presentations. Lecture 3 hours per week.

STUDENT DEVELOPMENT

SDV 100: College Success Skills (1 cr.) — Assists students in transition to college. Provides overviews of College policies, procedures, and curricular offerings. Encourages contacts with other students and staff. Assists students toward college success through information regarding effective study habits, career and academic planning, and other College resources available to students. May include English and math placement testing. Strongly recommended for beginning students. Required for graduation. Should be taken within first 16 credits at GCC. Lecture 1 hour per week. Offered every semester.

SDV 101: Orientation To Careers in Allied Health (1cr.) — Introduces students to the skills which are necessary to achieve their academic goals, to services offered at the college and to allied health careers. Covers topics such as services at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to allied health careers. Lecture 1 hour per week. Offered Spring and Fall semesters.

SDV 101: Orientation to Careers in Early Childhood and Elementary Education (1 cr.) — Introduces students to the skills which are necessary to achieve their academic goals, to the services offered at the college, and to the discipline in which they are enrolled. Covers topics such as services offered at the college including the learning resources center; counseling, and advising; listening, test taking, and study skills; and topical areas which are applicable to their particular discipline. Lecture 1 hour per week. Offered every fall and spring semester.

SDV 104 Study Skills (1 CR) — Assists students in planning strategies to overcome nonproductive study habits and in implementing positive study behaviors. Includes management, memory improvement, note taking, and test taking. Lecture 1 hour per week.

SDV 106: Preparation for Employment (1 cr.) — Provides experience in resume writing, preparation of applications, letters of application, and successfully preparing for and completing the job interview. Assists students in identifying their marketable skills and aptitudes. Develops strategies for successful employment search. Assists students in understanding effective human relations techniques and communication skills in job search. Lecture 1-2 hours per week.

SDV 107: Career Education (1 cr.) — Surveys career options available to students. Stresses career development and assists in the understanding of self in the world of work. Assists students in applying decision-making to career choice. Lecture 1-3 hours per week.