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American Sign Language

FOR MORE INFORMATION, CONTACT THE MODERN LANGUAGES DEPARTMENT IN MAWHINNEY HALL, ROOM M308, (315) 498-2305.

ASL 101 American Sign Language I (3) This learner-centered course is designed for students with little or no previous knowledge of American Sign Language. Students acquire basic grammatical and lexical skills that will enable them to communicate in routine social or professional situations within an authentic cultural context. Upon successful completion of ASL 101, students may enroll in ASL 102. This course also fulfills the Global Awareness requirement at Onondaga.

ASL 102 American Sign Language II (3) This course is a sequel to American Sign Language I. It builds upon the basic grammatical, linguistic, communicative and cultural concepts learned in ASL 101. Upon successful completion of ASL 102, students may enroll in ASL 201. This course also fulfills the Global Awareness requirement at Onondaga. Prerequisite: ASL 101, or two to three years of high school ASL, or Permission of Instructor.

ASL 201 American Sign Language III (3) This dynamic course draws upon previously acquired knowledge, while introducing students to more complex grammatical and lexical structures to further develop communicative proficiency and cultural knowledge. Upon successful completion of ASL 201, students may enroll in ASL 202. This course also fulfills the Global Awareness requirement at Onondaga. Prerequisite: ASL 102, or four years of high school ASL, or Permission of Instructor.

ASL 202 American Sign Language IV (3) This course is a sequel to American Sign Language III. It expands upon complex grammatical and lexical structures. This course provides a solid foundation for advanced study. Upon completion of ASL 202, students may enroll in any intermediate-high level course. Students who successfully complete the 202 level have fulfilled their language requirement for the A.A. in Humanities and Teacher Prep programs. The three additional credits may be taken either as a language course or as a general elective. Prerequisite: ASL 201, or five years of high school ASL, or Permission of Instructor.

Anthropology

FOR MORE INFORMATION, CONTACT THE SOCIAL SCIENCES DEPARTMENT IN MAWHINNEY HALL, ROOM M380, (315) 498-2301.

ANT 151 Introduction to Physical Anthropology (3) This course is a general introduction to the field of physical anthropology, with an emphasis on the causes and evolution of human biological similarities and differences. The course introduces the main perspectives and methods of physical anthropology, paleoanthropology, and primatology in order to help students trace and explain human evolution from the first primates and hominids to the development of bipedalism and the emergence of anatomically modern humans (Homo sapiens).

ANT 152 Introduction to Cultural Anthropology (3) This course provides students with an introduction to the cultural and social systems that humans have devised over time and space, using a comparative anthropological perspective. The course will also focus on using the methods, theories, and concepts of cultural anthropology to understand and explain the cultural diversity seen around the world.

ANT 154 World Archaeology (3) This introductory course discusses the basic philosophy and methods of archaeology, and provides an introductory survey of archaeological excavations and discoveries in the Near East, Africa, Asia, Europe, and the Americas, with an emphasis on understanding how societies changed and developed during the unwritten periods of human history. Beginning with the evolution of the first human ancestors nearly seven million years ago, topics will include the evolution of the earliest human societies, the development of lifeways based on domesticated plants and animals, and the emergence of complex societies. Along the way, students will also have a chance to use archaeological methods to make sense of material remains in their own society.

ANT 155 Language and Culture (3) This is an introductory course in anthropological linguistics and charts how human languages are formed, evolve, and disappear. The main topics will include the nature of human language as distinct from other communication systems; how we organize sound to make a language, i.e. how we identify sound patterns (phonology), create words (morphology), group words into sentences (syntax), and attribute meaning to these sounds (semantics and semiotics); the relationships between language, culture, and human thought; changes in language use in different socio-cultural contexts; and the historical development of languages and writing systems.

ANT 201 Anthropology of Marriage and the Family (3) This course examines marriage, kinship, and family systems in various cultures from around the world using a comparative anthropological approach. Students will gain an understanding of the cultural logics underlying diverse marriage customs, descent patterns, notions of relatedness, and forms of family life found in different parts of the world and within present-day American society.
ARH 101 Design and the Built Environment (2)
This course is an introduction to visual literacy and design, the architecture and interior professions and the built environment. It is offered as an exploration of the built environment and is an open elective. Topics to be discussed will include visual literacy, design process and principles, technology in design and the environment, professional practice and career options. It is part of the three-course foundation sequence required for all Architecture and Interior Design students and must be completed prior to enrollment in any additional courses in these curricula. Co-requisites: ARH/IND 150 and 170.

ARH 111 Design Studio 2 (4) This is the first of three design studio courses. Students begin to explore elements of design and their relationships in three dimensions. Design concepts and processes are discussed in detail. Architectural and interior design concepts of space, organizations, circulation, scale, structure, volume, massing, fenestration and materials are analyzed and discussed. This class meets 6 hours per week. Prerequisites: ARH/IND 101, 150, and 170; co-requisites: ARH/IND 120 and 140, or Permission of Instructor.

ARH 120 Drafting Studio 1: Wood Frame (3) This course will develop basic architectural drafting skills (digital and manual). The student will demonstrate an understanding of these skills through the development of a set of architectural drawings for a wood frame house or similar structure. This class meets 4 hours per week. Prerequisites: ARH/IND 101, 150, and 170.

ARH 121 Drafting Studio 2: Masonry (3) Students apply and improve drafting skills by developing architectural working drawings for a small commercial building. Drawing documents include symbol conventions, plans, sections, elevations and details with the emphasis on masonry bearing wall construction. Prerequisite: ARH/IND 120; co-requisites: ARH 142 and 143, or Permission of Instructor.

ARH 140 Wood Frame Construction (3) This is a lecture course covering the materials and methods of contemporary residential construction. The characteristics, properties, performance and application of exterior and interior materials and systems used in wood frame construction will be discussed.

ARH 142 Commercial Construction I (2) The first course in a two-course sequence covering the materials and methods of contemporary commercial construction. This course focuses on site-work, foundations, concrete framing systems, and masonry wall systems made of concrete, clay, and stone. Prerequisite: ARH/IND 140.

ARH 143 Commercial Construction II (2) The second course in a two course sequence covering the materials and methods of contemporary commercial construction. This course focuses on steel framing systems, moisture and thermal protection, glass and windows, cladding and curtainwalls, doors and hardware. Prerequisite: ARH/IND 140.

ARH 144 Introduction to Sustainable Construction (3) This course is an introduction to the theory and principles of innovative sustainable construction with a focus on residential construction. The course takes an integrated design and ecological systems approach to high performance green building. Students learn how to reduce the ecological impact of the built environment using cutting-edge best practices. Topics include climate change, green building principles, performance standards and measurements, and rating systems including LEED(R) for Homes. Cost, life cycle assessment, energy efficiency, renewable energy and solar elements, and valuing “natural capital” will be discussed. Prerequisite: ARH 140 or demonstration of a fundamental knowledge of residential construction or Permission of Department.

ARH 150 Graphic Communications Studio 1 (4) This foundation studio in graphic communications will be used to explore design principles. Freehand and digital techniques will be introduced that help the student appreciate forms, texture, and composition. Instruction will be given in word applications including AutoCAD, SketchUp, ANGEL CMS, and PowerPoint. Co-requisites: ARH/IND 101 and 170.

ARH 170 Technology: Design and Production (3) This course will develop the technology skills required for architecture and interior design students. The students will learn how to create, modify, communicate, collaborate, transmit and present solutions to problems using specific software applications including AutoCAD, SketchUp, ANGEL CMS, and PowerPoint. Co-requisites: ARH/IND 101 and 150.

ARH 215 Design Studio 3 (4) This is the second design studio for Architectural design. Students are expected to apply knowledge of design concepts and design process to “real-life” design problems. Programming, aesthetics of interior spaces, context, fenestration, materials, furniture, structure, and design development will be explored. Experimentation with space, form, light, and proportion will be stressed. Significant trends in interior and architectural design, as practiced by recent leading interior designers and architects, will be discussed. This class meets 6 hours per week. Prerequisite: ARH/IND 111 or Permission of Instructor; co-requisite: ARH/IND 256 or Permission of Instructor.
ARH 216 Design Studio 4 (4) This is the third design studio for Architectural design. This studio is a continuation of ARH 215 and will require in-depth analysis of design problems and higher expectations for design presentations. Students are expected to apply knowledge of design concepts and design process to “real-life” design problems. This class meets 6 hours per week. Prerequisites: ARH/IND 215 and 256, or Permission of Instructor.

ARH 222 Drafting Studio 3: Steel Frame (4) A concentrated continuation of ARH 121 with emphasis on the production of working drawings for steel and concrete frame multistory structures. Prerequisite: ARH 121.

ARH 223 Drafting Studio 4: Team Approach (4) A concentration on sophisticated detailing employing the team approach. A team of students will produce a coordinated set of working drawings. The course will include a survey of mechanical, electrical HVAC and structural drawings. Prerequisite: ARH 222.

ARH 230 History of Architecture and Interiors 1 (3) This is a survey course that traces developments in design, construction, materials and interiors from Prehistory to the dawn of the Renaissance. The comparative method is used to study the impact of economic, religious, political, sociological and technological developments on resultant building types, architectural forms, interior designs, furnishings and decorative arts.

ARH 231 History of Architecture and Interiors 2 (3) This is a survey course that traces developments in design, construction, materials and interiors from the dawn of the Renaissance to the present day. The comparative method is used to study the impact of economic, religious, political, sociological and technological developments on resultant building types, architectural forms, interior designs, furnishings and decorative arts.

ARH 241 Mechanical and Electrical Systems: An Introduction (3) Introductory survey of mechanical and electrical systems for buildings. Topics will include heating, ventilating, air conditioning (HVAC), plumbing, fire protection, electrical power, and lighting systems for residential and commercial buildings. Auxiliary electrical systems such as security, public address, fire detection and alarm systems will be briefly discussed. Coordination of these systems with existing architectural plans will be emphasized. Instruction will involve case studies of pre-designed buildings. The primary method of learning and evaluation will be through student prepared drawings. Prerequisite: ARH 121.

ARH 242 Environmental Control Systems I (3) Understanding of man’s comfort requirements and the design and selection criteria for heating, ventilating, and air conditioning, as well as water supply and sanitation systems and acoustical treatments.

ARH 243 Environmental Control Systems II (3) Design and selection criteria for electrical systems, lighting, and vertical transportation. Passive solar principles will be considered. Prerequisite: ARH 242.

ARH 244 Residential Energy Performance (3) This course is a fundamental study of energy efficiency and building science with an emphasis on residential energy performance and analysis. Topics include basic energy principles; building thermal boundary; and the control of air, heat, and moisture. The interaction of building components with environmental factors is essential to the discussion. Efficiency strategies for lighting, appliances, heating, cooling, and water heating will be introduced. Strategies for dealing with home health, air quality, and combustion safety problems will be discussed. Fundamentals of building inspection and diagnosis will be covered, including the use of the blower-door, duct-blaster, manometer, infrared camera, smoke generator and other testing equipment. Students must be available for two four-hour field experiences, times and days to be determined. Prerequisite: ARH/IND 140 or equivalent wood frame construction experience as determined by the Architecture department.

ARH 245 Solar Design in the Built Environment (3) This course introduces the design and application of solar energy in building design and construction. The primary focus is on passive solar energy, daylighting and shading strategies. Discussion topics include the historical development of solar energy in buildings, designing with nature, energy conservation, heat theory and thermal comfort, solar processes, passive and active solar energy systems, thermal mass and storage, solariums, natural ventilation strategies and earth-sheltered buildings. Prerequisite: ARH/IND 140; corequisites: ARH 142 and ARH 143.

ARH 250 Principles of Structures (3) Structure as it affects design. A study of the loading of structures and the resistance to those loads as they apply to wood frame and steel frame structures.

ARH 256 Graphic Communications III (3) An advanced course in perspective rendering. Students are expected to apply perspective drawing skills acquired in ARH 150 to generate color renderings of building interiors and exteriors. Students taking Architectural Design Studio II are encouraged to take this course concurrently and to use their design solutions as a base for required rendering projects in ARH 256. Prerequisite: ARH 150 or Permission of Department.

ARH 261 Office Practice (3) A detailed survey of important aspects of professional practice with emphasis on legal instruments, specifications, and cost estimating.

ARH 262 Building Codes (3) A detailed analysis of the New York State Building Code.
ARH 263 Green Building Rating Systems (2) This course acquaints the student with rating systems that seek to define and measure sustainable, high-performing green buildings. The course will focus on the U.S. Green Building Council’s LEED(R) Green Building Rating System portfolio of rating products and the major LEED categories including sustainable sites, water efficiency, energy and atmosphere, materials and resources, indoor environmental quality, and innovative design. Students will learn about the integrated design approach and the LEED(R) process and credit intents, requirements, and strategies. Other significant rating systems will be discussed and comparisons will be made with the LEED system. Prerequisite: ARH/IND 140 or Permission of Department.

ARH 266 Independent Project (1)

ARH 270 Digital Portfolio for Architecture and Interior Design (1) A hands-on course to create a digital portfolio. Students will utilize digital cameras, scanners, image editing software, and CD recording software and hardware to produce a PowerPoint presentation on an autorun CD. Basic computer literacy is required. Prerequisite: ARH or IND major with 30 completed credits, or Permission of Instructor.

ARH 272 Architectural CAD II (3) An intermediate level course in Architectural CAD (Computer Aided Drafting) utilizing 2-1/2 and 3-D software (AutoCAD). Topics include intermediate drawing, editing, and system commands with direct hands on experience, file management and multi-pen plotting. Professional details and drawings will provide the basis for graphic problems and solutions. Prerequisites: ARH 170 and ARH 120 (grades of B or better or Permission of Department).

ARH 291 Internship in Architecture (1) This course is designed for students in their second year of architectural coursework, giving them an opportunity to obtain real-world experience in the design and construction industry. Internships and co-op job opportunities are available throughout the community; however, there is no guarantee of internship placement. The ultimate responsibility for obtaining a placement rests with the student. Assistance is provided by department faculty and Onondaga’s internship office. Internships may be paid or unpaid. A learning contract containing specific educational objectives that relate to both the work experience and academic studies is developed between the student and a faculty internship coordinator. Course requirements include a minimum of 60 hours of work, maintenance of a work journal, and a final paper. Open to ARH majors only. Prerequisites: Approval of department, minimum G.P.A. of 2.5, and sophomore standing.

Arts

ART 101 Drawing I (3) Drawing is a basic thinking and visualization tool to any art discipline. This foundation course goes to the core of drawing as making sensitive, well-understood and named marks. Its purpose is to lead the student into understanding the intuitive, the visual and the spoken vocabulary of drawing. Students will realize perceptual values as they relate to conceptual values. The content of the course will be developed through various in-class exercises, projects, and extensive homework assignments. Prerequisite: ART or PHO major, or Permission of Instructor.

ART 102 Drawing II (3) This course refines the basic skills learned in ART 101, Drawing I. Emphasis is placed upon technical proficiency and in-depth exploration of the basic elements of drawing and design. Subject matter will be expanded to include the nude model. Prerequisite: C or better in ART 101.

ART 103 Design I (3) A survey and application of the basic principles of 2-dimensional design and composition and an introduction to the design process and its use in visual problem solving. Students will also receive training in the use of drafting tools, measuring systems and methods of producing finished work. Prerequisite: ART majors only or Permission of Instructor.

ART 104 Design II (3) A continuation and advanced application of the basic 2-dimensional design concepts and processes begun in ART 103. An introduction to basic 3-dimensional concepts. The course includes a cursory examination of career paths in the field of design and important historical design movements. Prerequisite: C or better in ART 103.

ART 105 History of Art I (3) Survey of painting, sculpture, and architecture from prehistoric times through the early Renaissance, with a consideration of major societal issues and ideas which may have influenced the development of forms and techniques in the visual arts.

ART 106 History of Art II (3) Continuation of ART 105, from the high Renaissance to the present.

ART 109 Principles of Drawing (3) Introductory course for non-art majors. An exploratory course that analyzes the components of drawing (line, shape, form, value, transition, texture, tension, balance, composition, etc.) Subject matter varies and may include still-life, landscape, architectural and figurative elements.

ART 111 Life Drawing Studio (3) Life Drawing is an intensive study of basic drawing skills, in keeping with portfolio development for high school students and others interested in advanced studies in the visual arts. The human figure is employed as subject, in the creation of expressive content. Summer only.
ART 112 The Practice of Visual Aesthetics (3)  
This is an introductory course for non-art majors exploring the common themes encountered in the visual arts. Students will explore content in the arts through analysis of a wide range of masterworks and apply these studies in creating original artwork. Class time will include lecture, demonstrations, and exploring new mediums for expression.

ART 114 History of Visual Culture (3)  
This one-semester course provides the understanding necessary for viewing art in an historical and aesthetic context. It is designed for non-majors. Students will also engage in exercises to develop writing and communications skills. A select set of artworks will establish the evolution and cross-cultural synthesis that is the basis of the history of art.

ART 123 Digital Design for the Non-Designer (3)  
This course offers an introduction to the fundamental design concepts and software techniques used by graphic designers to produce printed communications. Students will achieve a proficiency in the software used for computer aided graphic design as well as in the process of organizing 2-dimensional space. This course may be used as an elective course for non-art majors only. No MAC experience necessary.

ART 142 Introduction to Computer Graphics (3)  
An introduction to graphic design in a digital environment. The course examines industry standard software applications for page layout, illustration, and photo manipulation. Requirement for Graphic Design majors. Prerequisite: ART major and/or Permission of Instructor.

ART 152 Color and Concept Development (3)  
This course is an introduction to the visual thought processes used in the development of creative concepts and ideas, as well as an introduction to color theory and the emotional and spatial behavior of color. Focus is on the conceptual, verbal and technical skills needed to effectively communicate visual ideas. Prerequisite: ART major or Permission of Instructor.

ART 201 Advanced Drawing and Painting I (3)  
Advanced studio experience in drawing and the use of a variety of media. Emphasis is on improving technical skills, compositional sophistication and experimentation with new or multimedia techniques. Individual creativity is encouraged through exploration of a variety of subject possibilities. Prerequisite: ART 102 or Permission of Instructor.

ART 202 Advanced Drawing and Painting II (3)  
Advanced studio experience in drawing and the use of a variety of media. A continuation of Art 201, with a greater emphasis on self-directed individual creative development. The students will be assigned a term project or series of related works to be produced in consultation with the instructor. Further in-depth exploration and refinement of drawing technique and compositional ability will be stressed. Students will participate in group critiques with other students and guest faculty. Prerequisite: ART 201.

ART 203 Typography and Layout (3)  
Basic principles of typographic design and typesetting will be studied along with letterforms, their development and present trends. How to select fonts and create a hierarchy of projects will demonstrate how visual layout and typographic composition can be used to communicate ideas. Requirement for Graphic Design majors. Prerequisite: ART major; Permission of Instructor.

ART 204 Intermediate Computer Graphics (3)  
An intermediate-level course for students to develop the skills needed to create and manipulate images. The creative process and industry standard software functions are used to develop and edit images to communicate ideas graphically. Requirement for Graphic Design majors. Prerequisite: ART 142.

ART 205 Figure Drawing I (3)  
An exploratory drawing course concerned with the human form including the nude model. Emphasis will include the techniques of drawing, use of mediums, and the awareness of anatomical correctness. Skeletal and muscular construction will also be introduced. Prerequisite: ART 101/ART 102 or Permission of Instructor.

ART 206 Figure Drawing II (3)  
Continuation of Figure Drawing I, with further emphasis on anatomical studies. In addition, the syllabus will stress figure work in the area of design (figures in environments, in landscapes, and as part of graphic composition); and in anatomy, a more in-depth concern with spatial movements, volume, and structures. Prerequisite: ART 205.

ART 211 Introduction to Ceramic Sculpture (3)  
An introduction to 3-dimensional space, form, scale, surface and image as they relate to the specialty of ceramic sculpture. Related clay forming and firing techniques will be covered as well as historical and contemporary trends. Prerequisite: ART 219 or Permission of Instructor.

ART 212 Ceramics Sculpture II (3)  
An advanced ceramic sculpture course, drawing on the skills, techniques and understandings explored in ART 211. ART 212 will provide the student with the opportunity to produce a body of complex, related ceramic work. Prerequisite: ART 211 or Permission of Instructor.

ART 213 Painting I (3)  
A studio course concerned with the study of acrylic and/or oil painting medium and its applications to the various techniques of traditional and non-traditional painting. All techniques discussed and demonstrated will be applied to concentrated studio projects. Prerequisite: ART 101/ART 102 or Permission of Instructor.

ART 214 Painting II (3)  
Advanced course work in painting with concentrated studio projects and problems involving lighting, spatial and environmental concepts. Students should develop technical understanding of the various components of painting, space, volume, and value, as well as various painting media such as oil, acrylic, watercolor, gauche, encaustic, and graphic design media. Prerequisite: ART 213 or Permission of Instructor.
ART 218 Art in Animation (3) An introduction to the history of animation and hands-on studio experience making a short animated presentation. Students will learn the artistic skills required for computer animation techniques using current animation software.

ART 219 Ceramics I (3) An introduction to handbuilding techniques; the exploration of clay as an expressive material through various forming and decorating methods.

ART 220 Ceramics II (3) A continuing exploration of handbuilding and decorating techniques, as well as an introduction to throwing on the potter’s wheel. Prerequisite: ART 219 or Permission of Instructor.

ART 221 Modern Art and Its Backgrounds (3) A semester-long survey of the forms and techniques of late nineteenth and early twentieth century visual arts, with an examination of their relationships to one another, to past art, and to some of the major issues and ideas of their times.

ART 224 Design for Multimedia (3) This course focuses on the aesthetic and organizational skills required for designing interactive multimedia products. The course content includes the integration of the various elements of text, artwork, photographs, sound, and motion. Topics of discussion will include user interface design, interactivity, information mapping and intuitive navigation design. Prerequisite: ART 142 or Permission of Instructor.

ART 225 Watercolor (3) A studio course exploring traditional and non-traditional use of watercolor. Subject matter may include still-life, landscape, the nude figure. Prerequisite: ART majors or Permission of Instructor.

ART 226 Ceramic Processes I (3) An in-depth ceramics course with emphasis on exploring a variety of production techniques. Pottery processes covered include wheel throwing, slab and coil building, mold design, glaze and clay chemistry, primitive firing and reduction firing. Prerequisite: ART major or Permission of Instructor.

ART 227 Ceramic Processes II (3) Studio sequel to ART 226. Emphasis will shift to the production of a portfolio of related art work making use of previously acquired skills. Prerequisite: ART 226 or Permission of Instructor.

ART 240 Advanced Graphic Design (3) Practical and theoretical design concepts and their application to advanced communications problems and multi-piece campaigns will be studied. Projects will emphasize concept development and portfolio preparation. Required for Graphic Design majors. Prerequisite: Permission of Instructor.

ART 244 Visual Design for the Web (3) Visual design for the web examines the unique opportunities and capabilities of digital electronic art. Emphasis will be placed on the organization and the communication of visual information needed for Web site design. Students will learn how to create and maximize visual assets for Web design. Prerequisite: ART 142 or Permission of Instructor.

ART 290 History of Photography (3) A survey of the history of photography with concentration on selected major figures in photography from the nineteenth and twentieth centuries. Class activities will include instructor’s presentations, student reports, field trips, guest presentations, and discussions based upon those activities and upon assigned reading in the history of photography.

ART 291 Art: Cooperative Education (1) Designed to provide work experience directly related to the student’s area of study in art. Internships and co-op job opportunities are available throughout the community. Assistance is provided by department faculty; however, the ultimate responsibility for obtaining a placement rests with the student. A learning contract containing specific education objectives that relate to both the work experience and the field of study is developed between the student and a faculty co-op coordinator.

ART 292 Introduction to Haudenosaunee Art (3) Introduction to a variety of traditional Haudenosaunee arts and crafts by Native American artist/instructors. The course will be presented by from one to three instructors and will focus on selected traditional Native American media for example: sketching/painting, stone sculpture and metalwork. Students will create their own pieces, which will reflect their basic understanding of traditional Haudenosaunee tools, media and subject matter.

Automotive Technology

FOR MORE INFORMATION, CONTACT THE AUTOMOTIVE TECHNOLOGY DEPARTMENT IN THE WHITNEY APPLIED TECHNOLOGY CENTER, ROOM W1/76, (315) 498-7200

ATC 103 Automotive Fundamentals (4) Provides a foundation for students entering the automotive service field. It prepares the student with shop and tool safety, basic automotive maintenance procedures and pre-delivery inspection procedures. The internal combustion engine and related components are introduced in this course. Three class hours, and three-hour lab. Prerequisite: MAT 114 or Permission of Instructor.

ATC 115 Automotive Electrical Systems (4) An introductory course applied to the automobile. DC and AC circuits including series, parallel and series parallel are investigated. Concepts of magnetism and inductance are studied and applied to starting and charging systems. Laboratory emphasis is on basis electronic test equipment for diagnosing basic vehicle accessories and systems. Three class hours and a three-hour lab. Prerequisite: MAT 114 or Permission of Instructor.

ATC 116 Automotive Electronics (4) An introductory course in semiconductor devices, circuits, digital concepts and microprocessors applicable to the modern automotive system. Laboratory emphasis is on test instrumentation and the appli-
cation of troubleshooting techniques. Three class hours and a three-hour lab. Prerequisite: ATC 115 or Permission of Instructor.

ATC 131 Engine Concepts (3) A detailed study of the internal combustion engine. Topics include design criteria, thermodynamic combustion concepts, energy transfer, cylinder head design, intake and exhaust systems and efficiency principles. Service operations and measurement techniques are investigated in laboratory exercises. Two class hours and a three-hour lab.

ATC 142 Fuel and Ignition Controls (4) Extensively explores fuel delivery and emissions control. The emphasis is on microprocessor control applications applied to fuel management ignition and related emissions devices. Principles of feedback control signals are investigated in laboratory exercises. Three class hours and a three-hour lab. Prerequisite: ATC 116 or Permission of Instructor.

ATC 190 Cooperative Education I (3) This course is designed to provide work experience directly related to the student's field of study. A learning contract, containing specific educational objectives as they relate to the specific work experience and the student's field of study, is developed between the student, department coordinator, and the employer. There is a 120-hour minimum of work in the student's co-op experience. The student is required to keep a daily journal which provides relevant feedback to the department coordinator thereby ensuring a consistent monitoring of tasks performed during the work session. Prerequisites: ATC 115, ATC 103.

ATC 207 Chassis Fundamentals (5) This course examines the design, construction and operation of basic vehicular suspension systems, braking systems, alignment geometry, wheel and tire fundamentals and steering systems. The emphasis is on service and diagnostic procedures are discussed in detail. Laboratory exercises consist of wheel balancing and alignment, proper brake system service practices, suspension component diagnosis and replacement, anti-lock troubleshooting techniques and related chassis services. Rotor and drum machining techniques are explored in detail. Four class hours and a three-hour lab.

ATC 222 Drivelines and Geartrains (5) A thorough examination of manual and automatic transmissions/transaxles. Clutch operations, drivelines and differentials are addressed. Detailed power flow analysis for manual and automatic geartrains is provided in lecture with practical applications derived from laboratory exercises. Vehicle manufacturer service and maintenance procedures are investigated in lab activities. Four class hours and a three-hour lab. Prerequisite: ATC 243 or Permission of Instructor.

ATC 243 Advanced Engine Performance (4) Modern engine control systems are discussed. Ignition systems and related diagnostics with an emphasis on computer-controlled fuel management are examined. Laboratory topics include gas analyzers, oscilloscopes and scanning devices (DRBs). Three class hours and a three-hour lab. Prerequisite: ATC 142 or Permission of Instructor.

ATC 271 Climate Control Systems (3) Fundamentals of refrigeration and heating are analytically discussed. Concepts of modern electronic air temperature control systems are developed in the lecture. Laboratory activities focus upon service and diagnostic methods. Proper evacuation and recharging techniques applicable to current EPA standards are developed. Two class hours and a three-hour lab. Prerequisite: ATC 116 or Permission of Instructor.

ATC 290 Cooperative Education II (3) This course is designed to provide work experience directly related to the student's field of study. A learning contract, containing specific educational objectives, is developed between the student, the chairperson of Automotive Technology and the employer. There is a 120-hour minimum employment requirement in the student's cooperative experience along with a course component. Tasks include advanced automotive service activities involving electronic diagnostics and engine repair. The student is required to keep a daily journal of activities performed and periodic evaluations will be conducted by department faculty. Students will have assistance in the co-op placement; however, the ultimate responsibility for obtaining placement rests with the student. The Automotive chairperson must grant prior approval for the cooperative experience, which must be related to the student's curriculum. The work experience cannot be used to satisfy the requirement of another course. No experiential credit based upon past work experience will be awarded for this course. A letter grade will be assigned.

Biology

FOR MORE INFORMATION, CONTACT THE BIOLOGY DEPARTMENT IN FERRANTE HALL, ROOM F252, (315) 498-2411.

BIO 105 Exploring Biology (3) This one-semester course introduces biological concepts essential for an understanding of current issues such as the Human Genome Project, DNA Fingerprinting, the cloning of organisms, and AIDS. It is intended for students in non-science and non-health-profession majors; does not fulfill the science requirement for Math/Science or Computer Science students. Three class hours. Not open to students with credit in BIO 121 or any Biology course numbered 141 or higher. No prerequisite. Optional 1-credit laboratory available (BIO 105L); must be taken concurrently with BIO 105.

BIO 105L Exploring Biology Lab (1) Optional laboratory for BIO 105. Involves off-campus field trips plus weekly on-campus lab activities. May only be taken concurrently with BIO 105 or Permission of Instructor. Co-requisite: BIO 105. No prerequisite.
BIO 106 Human Biology (4) This one-semester course provides basic knowledge of the major organ systems of human beings. Emphasis is on how the body functions normally. It is intended for non-science majors and is inappropriate for students preparing for Nursing, Respiratory Care, Surgical Technology and Physical Therapy Assistant degrees. Does not fulfill the science requirement for Math/Science and Computer Science students. Three class hours, two laboratory hours. Not open to students with credit in BIO 152 or BIO 171.

BIO 110 Introduction to Microbes (3) An introduction to the nature of microorganisms, with an emphasis on topics of everyday significance. The roles of microbes in the environment, in food production and spoilage, and in health and disease will be explored, along with the basic biology of microbes. This general education science elective is intended for non-science, non-health professions students. Does not fulfill the science elective requirement for students in the Math/Science programs. Not recommended for students preparing to take BIO 205. Three class hours; no laboratory. No prerequisite.

BIO 111 Microbiology for Surgical Technology (1) This course provides an introduction to Microbiology, emphasizing aspects related to safe practice in the surgical field. The infectious process, infection control, and the role of the immune system in health and disease will be covered, in addition to the structure and properties of bacteria, fungi, viruses, and other microbes. Open only to students in the SGT program. No prerequisite; co-requisites: SGT 101, 102, 103.

BIO 112 Introduction to Biology - Geology (4) This is an introductory course in geology and biology for students with only a high school background in these two areas, and who are not intending to pursue a science curriculum. This course is designed for education majors with an emphasis in elementary education. Topics to be covered include: the scientific method, basic chemistry of geology and biology, the rock cycle and basic elements of rock types, biochemical cycles, hydrologic cycle, aspects of evolution, aspects of historical geology, and a survey of basic aspects of life. Prerequisite: SCI 111. Course is restricted to Liberal Arts and Science AA: Childhood Education and Adolescent Education majors. BIO 112 is cross-listed with SCI 112.

BIO 121 Introduction to Biology (4) This introductory one-semester biology course introduces some core concepts of biology. Topics include the molecular and cellular basis of life, energy flow in biological systems, gene expression and regulation, inheritance, development, and DNA technology. This course is for students who need additional preparation before attempting BIO 151 (General Biology) or BIO 171 (Anatomy and Physiology I). This general education science elective is intended for non-science, non-health professions students. Does not fulfill the science elective requirement for students in the Math/Science programs. Three class hours and two laboratory hours per week. No prerequisite.

BIO 131 General Ecology (3) A study of the principles of energy and material flow through ecosystems; includes the introduction of population dynamics and community organization. This class is available for MTS science elective credit and is also recommended for students in non-science majors seeking general education science elective credit. Three class hours. No prerequisite. Optional one-credit laboratory available (BIO 131L).

BIO 131L General Ecology Lab (1) A field and laboratory approach to ecological principles including energy and chemical flow through terrestrial and aquatic systems. Optional lab to be taken by current or former BIO 131 students. A Saturday field trip may be required, with an option for an equivalent Friday trip. No prerequisite.

BIO 147 Environmental Health (3) This course reveals how the sustained vitality of the planet is essential for maintaining the health of the societies and economies of the Earth. Major topics showing the mutual dependence of these realms of human existence (i.e., ecology, culture, and economics) are discussed. These topics include population forces, habitat alteration, pollution of air/soil and living species, water use and abuse, agricultural methods, and fuel (both fossil and renewable). Practical and attainable solutions to our current problems in these areas are emphasized. Solutions range from the personal through community, national, and global levels. No prerequisite. Suggested preparation: BIO 121 or 131 or 151 or 152. No laboratory. Can be used as a non-lab science elective for all students.

BIO 151 General Biology I (4) This course focuses on the molecular and cellular basis of life, including principles of inheritance, evolution, cellular respiration, and photosynthesis. The basic concepts are applied to a survey of bacteria, protozoa, fungi, and plants; plant structure and reproduction are also introduced. Three class hours and a two-hour laboratory. This class is intended for Math/Science majors, and is the prerequisite for BIO 152. Recommended preparation: mastery of high school biology and chemistry, or equivalent.

BIO 152 General Biology II (4) This course focuses on animals and systems biology, including a survey of animal types and of the organismal biology of animals. Organisms' methods of response and adaptation to the environment and to each other are also emphasized. Laboratory includes dissection of preserved animal specimens. Three class hours and 2 laboratory hours per week. BIO 152 assumes a basic knowledge of chemistry, cell structure and function, and the concepts explaining the genetic unity and evolutionary diversity of species. Prerequisite: BIO 151 or Permission of Instructor. The combination of BIO 121 and BIO 152 does NOT count as a sequence for the Math/Science degree.
BIO 171 Anatomy and Physiology I (4) First part of a two-semester study of the structure and function of the human body. Topics include homeostasis, basic chemistry, cell structure and function, tissues, and the following body systems: integumentary, skeletal, muscular, respiratory, and urinary. The cat is the primary dissection specimen in the laboratory. This course is for students preparing for Nursing, Respiratory Care, Surgical Technology, Physical Therapy Assistant, and other health-related professions. This course is inappropriate for students preparing for medicine or dentistry. It does not fulfill the lab science sequence requirement for most Math/Science students, but does fulfill the science elective requirement for Math/Science students. Three class hours, two laboratory hours. Students are expected to have mastered high school-level biology, chemistry, and algebra, or the college equivalents.

BIO 172 Anatomy and Physiology II (4) Second part of a two-semester study of the structure and function of the human body. The following body systems are covered: cardiovascular, nervous, endocrine, immune, digestive, and reproductive. The cat is the primary dissection specimen in the laboratory. This course is for students preparing for Nursing, Respiratory Care, Surgical Technology, Physical Therapy Assistant, and other health-related professions. This course is inappropriate for students preparing for medicine or dentistry. It does not fulfill the lab science sequence requirement for most Math/Science students, but does fulfill the science elective requirement for Math/Science students. Three class hours, two laboratory hours. Prerequisite: BIO 171.

BIO 205 General Microbiology (4) An introduction to the biology of microorganisms, with an emphasis on clinically relevant organisms. Topics include the structure and function of microbes, including their metabolism and genetics. Infectious diseases and the interactions between microbes and their hosts are also considered. Laboratory exercises emphasize the isolation, identification, and control of microorganisms. Primarily intended for students entering health professions. Not recommended for students with credit in BIO 110 or BIO 150. Three class hours and two laboratory hours. Prerequisite: BIO 151 or BIO 171, or Permission of Instructor.

BIO 220 Biology of AIDS (3) Starting where introductory biology classes leave off, this course explores AIDS and the pathology of HIV, including the structure and origin of the virus, mechanisms of viral replication, routes of transmission, and consequences of infection. Methods of prevention and treatment also will be discussed, including the biomedical challenges to effective treatment. A review of current testing methods and the prevalence of the disease in various populations will also be discussed, along with the role of the immune system in disease control and progression. This class is appropriate for all students, including non-science majors, science majors, and students entering the health professions. Three hours of lecture; no laboratory. Prerequisite: BIO 105 or BIO 121 or BIO 151 or BIO 171.

BIO 221 Pathology (3) This course covers the nature, causes, and development of disease conditions, as well as the structural and functional changes that result from the disease process. The principal diagnostic tests and treatments used in the detection and control of diseases will also be considered. Open only to students in the Health Information Technology program. Prerequisites: BIO 171 and BIO 172 (Anatomy and Physiology I and II).

BIO 253 Genetics (4) This course covers the biological basis for patterns of inheritance, including the structure, function, and regulation of DNA, genes, and chromosomes. The biochemical nature of mutations will be discussed, along with the potential consequences, both harmful and beneficial. Methods of molecular genetic analysis also will be introduced. This class is intended for Math-Science majors, especially students interested in Biology, Pre-Med, Pre-Vet, Pre-Physician Assistant, or Pre-Dent. Three lecture hours and two laboratory hours per week. Prerequisite: BIO 151 and BIO 152 (or equivalents) or Permission of Instructor.

Business

FOR MORE INFORMATION, CONTACT THE BUSINESS ADMINISTRATION DEPARTMENT IN THE WHITNEY APPLIED TECHNOLOGY CENTER, ROOM W324, (315) 498-2435.

BUS 100 Computer Keyboarding (1) Students will learn the basic skill of “touch” keyboarding on electric and computer keyboards in order to input information into a computer system. Students will learn alphabetic, numeric, and computer function keys. Three laboratory hours per week. Not open to students with previous credit for BUS 153.

BUS 101 Introduction to Business (3) An introductory course designed to give the student an overview of the impact of business on society. The course is intended to aid the student in obtaining a clear understanding of the way in which contemporary business functions through the interrelationships of marketing, management, and finance. Not open to students with previous credit in BUS 121 and/or BUS 230.

BUS 102 Mathematics of Business and Finance (3) A study of mathematical concepts and processes as applied to business and finance. Students will develop skills required to perform with accuracy and facility mathematical operations integral to the interpretation and solution of business problems. Arithmetic operations, signed numbers, linear equations, percentage and statistical procedures are applied to such topics as accounting, retailing, risk management, banking, and finance. This course is a core course for the Business Technology A.A.S. degree and may be used to fulfill a business or general elective requirement. Prerequisite: MAT 087 or equivalent or Permission of Instructor.
BUS 105 Financial Accounting (3) An introduction to accounting as a means of recording business activities. This course includes a study of the classification and recording of original business transactions, the preparation and evaluation of financial statements, and the application of Generally Accepted Accounting Principles. The course will incorporate appropriate computer technology in the instruction process. Prerequisite: MAT 087 or Permission of Instructor.

BUS 105R Financial Accounting Applications (1EQ) This course is designed to give additional instruction and application to the topics covered in Financial Accounting (BUS 105). The course includes the study of the preparation of journal entries, financial statements, merchandising activities, cash, accounts receivable, plant assets and payroll. Co-requisite: BUS 105.

BUS 106 Managerial Accounting (3) An introduction to the fundamentals of managerial accounting emphasizing the collection, management and use of accounting information in the decision making process within an organization. Topics include a comparison of the different types of organizations and the impact on their financial statements, long-term debt and equity transactions reporting and analysis of cash flows, procedures necessary to determine product costs, break-even analysis, profit planning, and cost analysis. The course will incorporate appropriate computer technology in the instruction process. Prerequisite: BUS 105.

BUS 106R Managerial Accounting Applications (1EQ) This course is designed to give additional instruction and application of topics covered in Managerial Accounting (BUS 106). The course includes a study of partnerships, corporations, bonds, long-term investments, statement of cash flows, job order and process costing, break-even and standard cost variances. Prerequisite: BUS 105; co-requisite: BUS 106.

BUS 117 Integrated Financial Systems I (3) Computers are one of the most important tools to accountants and users of accounting information. This course will provide extensive hands-on exposure to general ledger software. Skills acquired will include the ability to create, update and maintain general ledger master files, culminating in the preparation of computer-generated financial statements. Prerequisite/co-requisite: BUS 105.

BUS 121 Marketing (3) An introductory course in marketing intended to make the student aware of the development and efficient distribution of goods and services for a targeted consumer segment. The course studies both consumer and industrial markets, using as the basis for study the product, the distribution, the pricing and promotional techniques.

BUS 124 Principles of Retailing (3) The principles of retailing involve all the activities necessary for the sale of goods and services to the ultimate consumer for personal, family or household use. This course examines the different types of retail institutions and dwells on store location, merchandise planning and control, pricing and promotion.

BUS 138 Supervision and Management (3) A practical course on the principles and techniques of management applied by first line supervisory and training personnel. Special emphasis is placed on plant operations and organization, training and developing supervisors, evaluation of performance and motivation, and supervisory leadership responsibilities.

BUS 147 Disney Communications (3) The Disney Communications course offers the Walt Disney College Program participant the opportunity to learn the concepts inherent in business communication and apply them in the workplace. The skills taught are applicable to a wide variety of business environments. Participants begin by identifying basic listening skills, various methods by which people process information, and inclusive communication approaches. Once students acquire these interpersonal skills, they will move on to more complex situational topics including meetings, presentations, and facilitated classes. This course does not fulfill curriculum requirements for COM 101 or COM 102. Not open to students who have completed BUS 212. Co-requisite: BUS 292.

BUS 148 Disney Hospitality Management (3) The Disney Hospitality Management course will explore the concept of competitive advantage in the hospitality industry. Competitive advantage has been defined in terms of the organization itself: core competencies within the organization, the people within the organization, the organizational culture or shared values, and knowledge or learning. This course will show how the people within the Disney organization, the shared values, and broad knowledge of several job roles enhance the Disney Company’s competitive advantage. Additionally, through recognition and review of several different job roles, students will gain an understanding of how a corporation sustains a total commitment to quality improvement and its impact on guest service. Co-requisite: BUS 292.

BUS 153 Keyboarding Information Process (3) Fundamentals of touch typing using a computer keyboard. Students must keyboard a minimum of 30 words per minute within 5 errors on 3-minute timed writings. Basic formatting skills are developed in creating business reports. Not open to students with BUS 100.

BUS 178 Disney Corporate Communications (3) The Disney Corporate Communications course describes how American companies communicate with key audiences, both internal and external to the corporation. Course introduces students to the communication function and how companies reach a variety of publics to include customers,
investors, employees, media, government agencies and communities located in the proximity of the corporation. The purpose of this course is to introduce the students to the purpose and significance of communication within an organization at many levels. Students will learn both the why and how of communication techniques as organizations interface with customers, employees, and the public. As a result, students should have greater understanding of and appreciation for the corporate communication process. Co-requisite: BUS 292.

BUS 201 Intermediate Accounting I (4)
Intensive consideration is given to accounting theory and practice as it pertains to principle statement items. The course deals primarily with investments, receivables, inventories, fixed assets, and other material suitable to a second-year course in accounting. Prerequisite: BUS 106.

BUS 202 Intermediate Accounting II (4)
Intensive consideration is given to accounting theory and practice as it pertains to current and long-term liabilities, long-term investments in stocks, stockholders’ equity transactions, accounting for leases, Statement of Cash Flows, preparing statements from incomplete records and the analytical process as well as other selected topics. Prerequisite: BUS 201.

BUS 203 Accounting Applications Using Electronic Spreadsheets (3)
A continuation of the spreadsheet skills developed in CIS 100 and applications of these skills to advanced accounting problems. The topics include creation, modification and printing of spreadsheets and graphs; creating, debugging and executing macros; preparing data tables; the use of built-in functions, and “what-if” modeling. Appropriate current software will be utilized. Prerequisites: BUS 105 and CIS 100 or Permission of Instructor.

BUS 205 Income Tax Accounting I (3)
A course in individual and business taxes under the federal income tax system. The course includes instruction and practice in the fields of individual returns, includable and tax-exempt income, partnership and other information returns, other business property and depreciation deduction, deductible losses, capital gains and losses, involuntary conversions, installment sales, etc. There will be considerable practice in return preparation in all these areas, as well as instruction in same. Prerequisite: BUS 106.

BUS 207 Cost Accounting (3)
Basic principles of cost accounting are developed and applied to industrial situations. Topics include budgetary planning and control; income measurement and inventory valuation; accounting for costs of material, labor, and overhead; job-order, process, and standard costs systems. Prerequisite: BUS 106.

BUS 210 Disney Advanced Studies in Hospitality Management (3)
The Disney Advanced Studies in Hospitality Management Course is an advanced-level course that covers the more complex issues facing hospitality leaders today. The objective of this course is to prepare students to become entry-level managers in the hospitality industry by exposing them to contemporary operational issues and situations and equipping them with the ability to analyze problems and develop, propose and implement strategic solutions. Topics covered include leadership, strategic planning, international tourism, organizational behavior, communication, ethics, etiquette, human resource management, hospitality security and guest service, among others. Previous working knowledge of the hospitality industry gained through academic studies and practical experience is helpful. However, a list of supplemental reading material will be provided in week one to help those students without this foundational knowledge. Co-requisite: BUS 292.

BUS 212 Business Correspondence (3)
Business communications and report writing. Theory is put into practice in the writing of representative types of business letters and reports. Methods of all types of business communications are studied, including oral presentation. Prerequisite: ENG 103 or Permission of Instructor.

BUS 219 Statistics I (3)
Topics covering the descriptive and inferential aspects of statistics will include: frequency distribution, graphs, measures of central tendency and dispersion, probability, probability distributions, binomial and normal distributions, introduction to sampling theory, estimation theory, and hypothesis testing (mean, variance, proportions, etc.) Computer software will be used. A specific calculator will be required for this course. Credit will not be given for both MAT 151 and BUS 219 nor for MAT 118 if taken after BUS 219. Prerequisite: MAT 116 or MAT 141 or MAT 143 or Permission of Instructor.

BUS 220 Statistics II (3)
A continuation of Statistics I to include the topics: linear and multiple regression, correlation, analysis of variance, non-parametric statistics, Bayesian Decision theory and time series (as time permits). Prerequisite: MAT 151 or BUS 219 or Permission of Instructor.

BUS 230 Principles of Management (3)
A study of the management process with a survey of managerial and organizational theories. Specific topics will include planning, organizing, supervision, control, labor relations, and the functions of decision-making. Prerequisites: Sophomore standing, Permission of Instructor.

BUS 231 Human Resource Management (3)
A study of the major areas of Human Resource Management which includes recruitment, selection, job analysis, training, job evaluation, wage and salary administration, and labor relations as well as administrative functions and responsibilities of the Human Resource manager. Prerequisite: Sophomore standing or Permission of Instructor.
BUS 240 Disney Creativity and Innovation (3)
The Disney Creativity and Innovation course combines theory and experiential assignments to introduce students to the main concepts of creativity and innovation. It will explore their crucial importance to individuals, organizations, and the entrepreneurial process. Students will learn various tools to promote creativity within themselves and others, processes to increase innovation, how to contribute to a creative team, how to manage creativity, and how to establish a culture of creativity within an organization. As a result, students should have greater understanding of and appreciation for the creative/innovative processes and be better able to harness and direct these forces for themselves and others. This course prepares students to contribute in a unique and productive way to today’s entrepreneurial and organizational demands. Co-requisite: BUS 292.

BUS 243 Business Law I (3) The fundamentals of legal liability, of the growth of our legal institutions, and court systems. The principles of the law of contracts, negotiable instruments, and sales.

BUS 244 Business Law II (3) The legal aspects of business, covering agency and partnerships, corporations, and related business organizations (reference to government regulations of business and business torts).

BUS 247 Disney Human Resources (3) This course explores the human resource management function in a corporate setting and specifically focuses on the development of knowledge and skills needed by each corporate manager. Topics include: interviewing, employment law, labor relations, compensation, performance appraisal, training and maintaining effective environments. The classes are designed to familiarize participants with current human resource practices and laws applicable to their career fields. Not open to students who have completed BUS 231. Co-requisite: BUS 292.

BUS 248 Disney Organizational Leader (3) This course examines and applies the universal principles of leadership to the Disney culture. It is designed to build leadership knowledge and skills transferable to community and commerce. Instructional methods include: lectures, group discussions, self-assessment, project development and presentation, and situational studies. Co-requisite: BUS 292.

BUS 290 Cooperative Work Study (3) A course designed to prepare students to work after graduation. A learning contract containing specific educational objectives that relate to both the work experience and the field of study is developed between the student and a faculty co-op coordinator. Course requirements include a minimum of 180 hours of work, the maintenance of a work journal to record hours worked and duties performed, other work as required by the instructor and a final term paper. The student’s performance will be evaluated by the co-op faculty coordinator on the basis of meeting the objectives in the learning contract and satisfactory evaluation by the employer. A letter grade will be awarded. No experiential credit is given for previous work in the field. The work experience cannot be used to satisfy the requirements of any other course.

BUS 292 Disney Corporate Analysis (9) The Disney Corporate Analysis course uses a directed working and learning experience to expand knowledge of successful organizational practices. This course is designed to meet a participant’s need for an integrated work-study internship program that provides transferable knowledge and skills to all participants. Class content is delivered through lectures, group discussions, learning activities, and situational studies. Student must have full- or part-time status with a minimum G.P.A. of 2.0. The student is responsible for transportation to and from Florida. Students receive an hourly wage. They are housed on Disney property; housing costs are deducted from their weekly paycheck. Students must register for this course during the same semester they are enrolled in the Disney experience. This course cannot be taken concurrently with BUS 290. Prerequisite: Full- or part-time status; minimum 2.0 G.P.A.

BUS 295 Business Policy Seminar (3) A capstone course that integrates concepts and skills learned in core business courses with the policy making process. Emphasis is placed on a systematic analysis of the factors upon which business strategies and business decisions are made. Major issues in the field of business are studied by means of course work, case study, field research, and computer simulation. Prerequisites: Sophomore standing and completion of Business Technology A.A.S. business core requirements, or Permission of Instructor.

Chemistry
FOR MORE INFORMATION, CONTACT THE CHEMISTRY/PHYSICAL SCIENCE DEPARTMENT IN FERRANTE HALL, ROOM F352, (315) 498-2432.

CHE 103 General Chemistry I (4) A study of atomic structure, introductory chemical bonding, stoichiometry, kinetic molecular theory and the states of matter, solutions, ionic reactions, oxidation and reduction, and acid and base theories. This course presupposes a knowledge of intermediate algebra. Three class hours and three laboratory hours. Prerequisite: MAT 087 and college-level reading.

CHE 103R General Chemistry I Recitation (1 EQ) Optional recitation section for CHE 103. Provides the opportunity for students to apply the theories, concepts and problem-solving techniques presented in CHE 103.

CHE 104 General Chemistry II (4) A study of thermochemistry, kinetics, chemical equilibrium, electrochemistry, advanced concepts in chemical bonding, the chemistry of the representative metals and nonmetals, coordination complexes, basic organic chemistry, biochemistry, and nuclear chemistry. Three class hours and three laboratory hours. Prerequisites: CHE 103, MAT 114.
CHE 104R General Chemistry II Recitation (1EQ) Optional recitation for CHE 104. Provides the opportunity for students to apply the theories, concepts and problem-solving techniques presented in CHE 104.

CHE 151 Basic Chemistry for the Health Sciences I (3) A study of chemistry at an introductory level, intended for students in the paramedical sciences (nursing, dental hygiene, respiratory therapy, etc.) Topics include the nature of atoms; ionic and covalent bonding; nomenclature; chemical change and equilibrium; gas laws; properties of water and aqueous solutions; acids, bases and pH, and an introduction to organic and biochemical compounds. This course pre-supposes some knowledge of elementary algebra. Not open to Math-Science students. Prerequisites: College-level reading and placement into MAT 087 or higher.

CHE 151L Basic Chemistry for the Health Sciences Laboratory I (1) Optional laboratory for CHE 151; illustrative experiments emphasizing the concepts, principles, and techniques presented in CHE 151. Three laboratory hours per week. Prerequisite or co-requisite: CHE 151 and placement into MAT 087 or higher.

CHE 151R Basic Chemistry for the Health Sciences Recitation I (1EQ) Optional recitation section intended for students concurrently registered in CHE 151. The recitation provides the opportunity for students to apply the theory, concepts and problem-solving techniques presented in CHE 151.

CHE 152 Basic Chemistry for the Health Sciences II (3) A study of organic chemistry and biochemistry at the introductory level. Topics include the structure and properties of aliphatic and aromatic hydrocarbons, functional groups, carbohydrates, lipids, proteins, enzymes, vitamins, and drugs. Not open to Math-Science students. Prerequisite: CHE 151 or CHE 103 and Permission of Instructor.

CHE 203 Quantitative Analysis (4) Topics covered include error and statistical treatment of data, chemical equilibrium, gravimetric analysis, various types of volumetric analysis, electrochemistry, spectrophotometry, and introduction to analytical separations. The laboratory portion of the course includes traditional and modern methods of gravimetric and volumetric analysis, and elementary instrumental methods. Three class hours and four laboratory hours. Prerequisites: CHE 104 and MAT 101 or higher.

CHE 205 Organic Chemistry I (5) An introduction to the chemistry of the functional groups of aliphatic and aromatic compounds. Emphasis is placed on mechanisms of reactions and the relationship of structure to reactivity. Laboratory work is concerned with the synthesis, reactions, and identification of representative organic compounds along with experience in the necessary experimental techniques. Four class hours and four laboratory hours. Prerequisites: CHE 103 and 104 and college-level reading.

CHE 206 Organic Chemistry II (5) A continuation of CHE 205 with more emphasis on mechanisms, structures, natural products, and the study of qualitative organic analysis. Four class hours and four laboratory hours. Prerequisites: CHE 205 and lab, and college-level reading.

Cinema

FOR MORE INFORMATION, CONTACT THE ENGLISH DEPARTMENT IN MAWHINNEY HALL, ROOM M310, (315) 498-2313/2266.

CIN 210 Study of Short Film (3) From early “one-reelers” to current offerings on dedicated Web sites, international festivals, and film schools, this course studies the history, form, and purpose of classical and contemporary short films. Students will view, discuss, and write about the unique aspects of the short narrative film, with its dazzling array of themes and styles. As these award-winning independent films often feature actors, writers, and directors prominent in commercial films and television shows, the course provides an opportunity to examine the relationship between 5-25 minute short films and full-length films by the same writers or directors.

CIN 211 Comedy Films (3) Studies the development of film comedy from its humblest origins to its most sophisticated forms. The course breaks down into studies of the physical, clown tradition of comedy, and the more sophisticated verbal comedy. An emphasis on key comic performers, writers, and directors helps make this an intellectual study of why comedy is universally appealing.

CIN 212 Horror and Fantasy Films (3) A study of the classic myths of horror, with an emphasis on the literary origins of horror tales, and a close study of such significant books as Dracula and Frankenstein, with interpretations of why such terrifying concepts have continuously proven popular the world over, and a study of the way in which Hollywood motion pictures have both extended and distorted the varied tales.

CIN 213 The Animated Film (3) A study of film animation, its history and the way in which it is achieved, with a special emphasis on the relationship of the animated film to trends in modern art, and the philosophy - social, political, etc. - of the major animated filmmakers.

CIN 214 The Films of Alfred Hitchcock (3) A study of the man, regarded by many as the greatest filmmaker of all time, showing the way in which, despite his guise as light popular entertainer, Hitchcock created a body of films which are tied together by philosophic and artistic threads. A close study of the recurring themes and technical devices which mark his movies, from the earliest silent features to the most recent sound ones.
Communication

FOR MORE INFORMATION, CONTACT THE ENGLISH DEPARTMENT IN MAWHINNEY HALL, ROOM M310, (315) 498-2313/2266.

COM 101 Interpersonal Communication (3)
This introductory course is designed to acquaint students with the communication skills needed to succeed both academically and socially. Course content includes communication theory, perception, verbal and non-verbal communication, effective listening, awareness of the self as a communicator and relational communication. Emphasis is placed on class discussion as a tool for learning and practice and real-life examples. Prerequisite: Any 100-level Communication course or Permission of Instructor.

COM 102 Public Speaking (3)
Public Speaking is a course designed to acquaint the student with the basic skills of public discourse. Course content includes the importance of audience analysis and adaptation, how to choose an appropriate topic, organization, speech purpose and delivery. Word study, effective language use, effective non-verbal skills and critical listening skills are stressed.

COM 104 Persuasion in Everyday Life (3)
In our modern age, persuasion finds its way into every aspect of our lives. From friends asking for favors, to politicians campaigning for votes, to advertisers pushing their products, we regularly fill the roles of the persuader and the persuaded. This course is an investigation of communication theories of persuasion, the devising of persuasive messages, and the consumption of persuasive messages in a variety of contexts. Class activities, discussions, readings, and assignments are designed to develop communication skills necessary for effectiveness as producers and consumers of persuasive communication.

COM 111 Social and Professional Etiquette (3)
This course introduces students to the development and use of social and professional etiquette rules and customs as currently practiced in the United States. Emphasis is placed on understanding the communicative nature of etiquette and its uses in furthering social and professional interactions. This lecture/demonstration course will include practice in various verbal and nonverbal skills required in the current social and professional climate including instruction in netiquette. Additionally, students will be introduced to etiquette rules and customs from around the world and will practice using these as a way to prepare for the global marketplace. This course meets with LBR 111.

COM 113 Communication and Health (3)
This course offers students the opportunity to learn and practice the unique communication skills needed in the health professions. Communication among professionals, between professional and patient, professional and client, professional and nonprofessional caregiver will be examined. Best practice in intrapersonal, interpersonal, group communication in the healthcare context will be discussed. How to effectively communicate in conflict situations, ethical considerations, and intercultural and multicultural communication are other topics included in this class.

COM 115 The Films of Woody Allen (3)
A study of Woody Allen's emergence from gagwriter to award winning filmmaker and short story writer. All of Allen's motion pictures, as well as many of his writings, will be covered to trace the emergence of his unique point of view.

COM 201 Intercultural Communication (3)
This course seeks to improve intercultural communication competence through learning about communication patterns between those with different cultural backgrounds. Topics include verbal and nonverbal differences in cultural expression, intercultural relationships, barriers to effective intercultural communication, methods for overcoming these barriers, stereotyping, and racism. Students will learn to integrate theory with practice and real-life examples. Prerequisite: Any 100-level Communication course or Permission of Instructor.

COM 202 Rhetorical Criticism (3)

This course is designed to acquaint the student with the basic skills of public discourse. Course content includes the importance of audience analysis and adaptation, how to choose an appropriate topic, organization, speech purpose and delivery. Word study, effective language use, effective non-verbal skills and critical listening skills are stressed.

COM 204 Persuasion in Everyday Life (3)
In our modern age, persuasion finds its way into every aspect of our lives. From friends asking for favors, to politicians campaigning for votes, to advertisers pushing their products, we regularly fill the roles of the persuader and the persuaded. This course is an investigation of communication theories of persuasion, the devising of persuasive messages, and the consumption of persuasive messages in a variety of contexts. Class activities, discussions, readings, and assignments are designed to develop communication skills necessary for effectiveness as producers and consumers of persuasive communication.

COM 211 Social and Professional Etiquette (3)
This course introduces students to the development and use of social and professional etiquette rules and customs as currently practiced in the United States. Emphasis is placed on understanding the communicative nature of etiquette and its uses in furthering social and professional interactions. This lecture/demonstration course will include practice in various verbal and nonverbal skills required in the current social and professional climate including instruction in netiquette. Additionally, students will be introduced to etiquette rules and customs from around the world and will practice using these as a way to prepare for the global marketplace. This course meets with LBR 111.

COM 213 Communication and Health (3)
This course offers students the opportunity to learn and practice the unique communication skills needed in the health professions. Communication among professionals, between professional and patient, professional and client, professional and nonprofessional caregiver will be examined. Best practice in intrapersonal, interpersonal, group communication in the healthcare context will be discussed. How to effectively communicate in conflict situations, ethical considerations, and intercultural and multicultural communication are other topics included in this class.

COM 215 The Films of Woody Allen (3)
A study of Woody Allen's emergence from gagwriter to award winning filmmaker and short story writer. All of Allen's motion pictures, as well as many of his writings, will be covered to trace the emergence of his unique point of view.

COM 216 American Film Directors (3)
This course allows students to study the contributions to the art of film of the great American film directors. In a given semester one director such as Stanley Kubrick, Quentin Tarantino, or Martin Scorsese will be discussed in terms of his contribution to important genres, film techniques, and pop culture influences, among other possible topics. Students will view the director's films as well as sample the literature from which the director chose his screenplays.

COM 218 The American Hero in Film (3)
This course will trace the development of the American Film Hero from early 20th Century to present. The course will concentrate on different genres in American film, depicting a variety of heroes, including: The Early War Film, the Western, the Gangster Film, The Vietnam Era, Film Noir as well as many others. Students will study the novels on which successful film adaptations have been based.

COM 285 The Cinema (3)
This course is designed to introduce students to the power of cinema in a variety of applications and contexts. The course introduces students to a range of theories concerning cinema and its impact on the viewer, and provides opportunities to apply those theories to cinematic phenomena. Contextual focuses for the course may include: genre studies, studio studies, world/foreign cinema, documentary, shorts animation or other emerging topics within the field. Class activities, discussions, readings, and assignments are designed to develop a better understanding of cinema as an art form, as social commentary and as entertainment through critical analysis of communication phenomena. Prerequisite: any Cinema course or Permission of Instructor.

Communication
artifacts. Although rhetorical criticism has its roots in the evaluation of speeches, this course provides students the opportunity to evaluate a wide range of communication artifacts, ranging from speeches to films, music, art, and even architecture. Through rhetorical criticism, students learn to better understand the motives, strategies, and effects of strategic public communication. Class activities, discussions, readings and assignments are designed to develop communication, critical thinking, and analytical skills through an introduction to rhetorical criticism. Prerequisite: Any 100-level Communication course or Permission of Instructor.

COM 203 Communication and Gender (3) A course designed to acquaint the student with the unique ways in which women and men communicate. The focus of this discussion-oriented class is on how gender influences verbal and non-verbal communication, listening, speaking and interpersonal relationships. Additional topics covered will include communication and gender in the workplace and the classroom as well as the influence of the media on gendered communication. Prerequisite: Any 100-level Communication course or Permission of Instructor.

COM 204 Advocacy and Opposition (3) Advertising, advocacy and public policy debates all require an understanding of the rhetorical nature of argumentation and persuasion. This course provides opportunities for students to develop that understanding through speeches, debates, group presentation and community interaction. Prerequisite: Any 100-level Communication course or PHI 107 or POS 100 or Permission of Instructor.

COM 205 Teamwork and Small Group Communication (3) This course is an in-depth study of the nature and process of teamwork and small group communication. Students will study the theory of small group process, the nature of small groups and group dynamics. The course will address small group/teamwork issues such as decision-making, creativity, computer mediated group communication, diversity and conflict management. Students will make small group/team presentations, as well as engage in small group/teamwork evaluation. Prerequisite: Any 100-level Communication course or Permission of Instructor.

COM 206 Voice and Articulation (3) This course is appropriate for students wishing to enter broadcasting, theater, or other careers where voice and articulation are important and for students who wish to enhance their ability to articulate American English. This lecture/demonstration course offers students practice in the use of the voice as a communication tool. Topics covered include: articulation, the aspects of the voice, pronunciation, the vocal mechanism and the International Phonetic Alphabet. Prerequisite: Any 100-level Communication course.

COM 207 Communication @ Work (3) This course is an introduction to the theory and practice of communication in the workplace. The focus of the course is interpersonal communication in a professional context. Topics covered include: meeting management, interview techniques, participation in team and group communication, preparation of professional presentations, managerial communication, diversity in the workplace, and listening skills. This course emphasizes the development of practical and critical skills. Prerequisite: Any 100-level COM course or Permission of Instructor.

COM 209 Communication and Conflict Management (3) This course explores the nature of conflict interaction from a communication perspective. The course will examine attitudes, conditions, and perceptions that influence communication interaction and conflict. Students will be introduced to communication tools and techniques for effectively managing conflict in interpersonal relationships, groups, the workplace and organizations. Prerequisite: Any 100-level Communication course.

COM 290 Communication Seminar (3) This course is designed to introduce students to the power of communication in a variety of applications and contexts. The course introduces students to a range of communication theories, and provides opportunities to apply those theories to communication phenomena. Possible contextual focuses for the course could include: the rhetoric of social movements, strategic communication through song, the rhetoric of religion, family communication, or other emerging topics within the field. Class activities, discussions, readings, and assignments are designed to develop a better understanding of communication theories and skills through critical analysis of communication phenomena. Prerequisites: Any 100-level Communication course AND any 200-level Communication course, OR Permission of Instructor.
CMT 101 Introduction to Computers and Applications (4) This course is an introduction to basic concepts underlying the computer and its applications in technology and science fields. The focus of the course is on studying the computer for acquiring and presenting information, using spreadsheets to solve problems, collecting and storing data, and word processing. Topics include: hardware and software computer concepts, an introduction to internet in acquiring and sharing information (WWW, User list, and Personal Message Centers), introduction to spreadsheet applications in solving problems and charting, use of text editors to write documents (Word Processing), an introduction to technical presentations, and use of application programs for organizing data, and drawing charts and schematics. (Students who have completed CIS 100 or CMT 110 may not take this course for credit.) Prerequisite: MAT 079; co-requisite: MAT 088/087 or Permission of Instructor.

CMT 102 PC Hardware, Operating Systems and Support (4) This course follows the CompTIA A+ guidelines on the support and maintenance of desktop computer systems. The objectives of this course are to provide information on the support of desktop computers, the proper techniques to successfully maintain computers, and a thorough understanding of the relationship between computer hardware and the software that is used to control that hardware. The following concepts will be covered: Electricity and Power Supplies, Motherboards, Storage Devices, Installing and using Windows based Operating Systems, SCSI technology, Network and Internet connections, Spyware and Virus protection. Students who wish to obtain CompTIA A+ Certification will need to complete the exam through an external agency and fees will apply. (Three class hours and a three-hour lab.)

CMT 110 Introduction to Computing (3) The primary objectives of this course are to introduce students to a text editor to write a simple document and to use a spreadsheet program to solve problems related to computer circuits. The topics include: use of a text editor to write and edit a technical document; use of a spreadsheet to solve digital designs, provide graphical solutions, and track data; and integration of data from the spreadsheet and graphics editor into a technical document. Two-hour lecture and two-hour lab. Co-requisite: MAT 106.

CMT 161 Digital Systems for Telecommunications I (4) This course presents topics in hardware and systems as used in the telecommunications industry. Electrical and digital circuits are explored. Binary number systems are discussed as applied to telecommunications equipment. Students will explore hardware to the modular level. Students will demonstrate and simulate digital circuits. Prerequisites: MAT 106, CMT 110.

CMT 171 Digital Electronics (4) An introduction to digital and computer integrated circuits, emphasizing the concepts that are basic to any digital system: number systems, small-scale and mid-scale gates, programmable logic devices, sequential logic, combinational networks, Boolean algebra, truth tables, Karnaugh maps, state machine design, timing diagrams, and digital arithmetic. Three class hours and a three-hour lab. Prerequisite or co-requisite: Intermediate algebra or equivalent.

CMT 180 Digital Systems for Telecommunications 2 (4) In this course students will be working with hardware and software installation with an introduction of personal computer fundamentals. Students will connect a personal computer to a network, and install and setup a printer. The course will cover managing and supporting Microsoft Windows and operating system configuration, given user related issues, and customization. Students will learn how to maintain a computer with troubleshooting fundamentals. An optional topic would cover Home Technology Integration including surveillance and home automation. The course is composed of lecture and in-class demonstration. Fall semester only. Prerequisite: CMT 161.

CMT 190 Introduction to Microprocessors (4) An introduction to basic principles of microprocessor architecture and assembly language instructions. The content of the course is divided into three sections: microprocessor architecture, mnemonics and interfacing I/Os. The course is designed around an 8-bit microprocessor and its mnemonics. Topics included in the course are: overview of computers and micro-computers, microprocessor architecture, bus architecture, memory (RAW Memory, ROM, and EPROM) maps, I/Os, interfacing devices and introduction to the instruction set of the microprocessor. The third section, interfacing I/Os, introduces various I/O techniques such as parallel I/O, serial I/O and interrupts. Three class lectures, one-hour programming session, and two-hour lab. Prerequisite: CMT 171 or CSC 111 or equivalent.

CMT 221 Computer and Network Security (3) This is an introductory course in Computer and Network security principles as detailed by the CompTIA Security+ Certification guidelines. Students who enroll in this course should be capable of installing, configuring, and connecting computers to the Internet. Security+ Certification candidates should also have A+ and Network+ certifications or equivalent knowledge and skills, in addition to experience in computer networking, and a thorough knowledge of Transmission Control Protocol/Internet Protocol (TCP/IP). Prerequisites: CMT 102, CMT 231 or Permission of Instructor.
CMT 231 Introduction to Networking (4) This course will provide a comprehensive introduction to Networking fundamentals. Primary focus will be on logical and physical aspects of the Local Area Network, the OSI reference model, protocols, topologies, and heterogeneous internetworking. The course will look at issues organizations face while implementing Local Area Networks within their computing environments, and how networking technology changes the way we interact socially. The review of various technologies will include Client O/S platforms (DOS, Windows, & Linux), in both work and home networked environments. Discussion topics will include emerging technologies, and business/social considerations within the changing networked environment. Hands-on lab assignments and group activity will be emphasized. Prerequisite: CMT 101 or CIS 100 or Permission of Instructor.

CMT 271 Internetworking I (4) An introduction to the fundamentals of networking. Students will learn the fundamentals of installing, programming and troubleshooting a network based on the OSI (Open System Interconnection) model. Students will be introduced to IP and TCP/IP addressing, including subnet addressing. The hardware components of basic networks, including router, will be covered, along with basic network topologies and designs. Prerequisite: CIS 125 or Permission of Instructor. 3 hours lecture and a 2-hour lab.

CMT 272 Internetworking II (4) The continuation of CMT 271. The students will be introduced to advanced networking concepts. Topics include LANS, WANS and other types of regional networks. Students will learn to segment networks with bridges, routers and switches. Students will also be instructed on configuring and monitoring various types of networks. After successful completion of this course, students will be qualified to pursue a number of industry-standard certifications, including Cisco Certified Networking Associate (CCNA) and Computing Technology Industry Association (Comp TIA) Networking certifications. Prerequisite: CMT 271. 3 hours lecture and a 2-hour lab.

CMT 278 Principles of Computer Programming (3) Principles of computer programming applied to the solution of various technical problems. Two class hours and a two-hour laboratory. Prerequisite/co-requisite: ELT 141 or Permission of Instructor.

CMT 292 Data Acquisition Using LabVIEW (4) This course is concerned with using the PC as a tool for data acquisition and process control applications. This course uses National Instruments LabVIEW as a programming and implementation vehicle for industrial applications. The topics are divided into groups: General programming design (Specification development, UI design, state machine/data flow architecture, scheduling, and resource management), LabVIEW programming, data acquisition system design (signal types, A/D, D/A, digital, discrete, continuous, sampling, etc) and process control (states, events, logs, etc). All applications use a National Instruments DAQ board to interface with external test equipment and circuits. Emphasis will be placed on designing a project using LabVIEW. Three-hour lecture and a three-hour program development session.

CMT 294 Designing Embedded Systems With Microcontrollers (4) This is a project-oriented course concerned primarily with designing embedded systems using microcontrollers in integrated development environments (IDE). The topics are divided into the following groups: Microcontroller Architectures focusing on a specific microcontroller (instructions set, and on-chip peripheral devices), Parallel I/O, Interrupts, Serial I/O, and Data Acquisition. Topics included in Parallel I/O are: basic concepts in data transfer, interfacing displays using simple I/O and the scanned technique, interfacing matrix keyboards, data transfer using handshake signals and interrupts. Serial I/O includes basic principles in serial communication protocols and standards. Data Acquisition includes A/D and D/A converters, their applications, and interfacing. These topics will be discussed in the context of on-chip devices such as timers, CCP modules, SCI, SPI, and A/D Converter. Students are expected to design an embedded system project. Software based on a high-level language such as C is integrated with the topics, and IDE will be used for program development and troubleshooting, and in-circuit emulation (ICE). Course meets for three lecture hours and three hours of programming each week. Prerequisites: CMT 190 and CMT 278 or equivalent.

Computer Information Systems


CIS 100 Principles of Information Systems (3) An introductory course in computer fundamentals, covering computer hardware, software, and business applications. A significant portion of the course is devoted to the use of modern applications software packages such as word processing and spreadsheet software. The course involves extensive hands-on exposure to both time-sharing and microcomputer systems. Other topics include the evolution of the information-based society, the information processing cycle, and the processing capabilities of computers.

CIS 101 Computer Concepts: An Introduction (1) This course provides Computer Information Systems majors with an introduction to computer concepts and terminology to prepare them for subsequent courses. Topics covered will include binary and hexadecimal number systems, analog and digital signals, data storage, transmission and processing methods, and networking. Topics will be covered at an introductory level. The course will be taught primarily online to introduce CIS majors to the experience of the electronic community. One lecture hour per week. Required for CIS majors enrolled in CIS 100. Co-requisite: CIS 100 or Permission of Instructor.
CIS 102 Internet Basics (3) An introductory course in the usage of the Internet, intended for non-majors and majors with little or no Internet experience. Students will learn how to use Web browsers, search engines, and e-mail. Different types of Web-delivered media will be presented and discussed, in addition to a general history of the Internet. Several issues will also be addressed, such as content evaluation, legality, ethics, and virus protection. Prerequisite: none.

CIS 103 Computer Communications Using Internet (1) Basic computer communications concepts are introduced. Course content includes the use of technology for communications, information retrieval, and verification. The local computer network and e-mail system will be introduced and heavily used to create a virtual student community. In addition, the responsibilities of electronic citizenship and techniques for proper behavior using shared resources will be learned and practiced.

CIS 106 An Introduction to Digital Media (3) This introductory-level course provides a basic hands-on approach for the production and assessment of a team-based digital media project. Utilization of the components found in various software programs will allow students to select a digitally-based project utilizing various aspects of audio, video and digital media. A culminating project will be distributed via DVD, the Internet/World Wide Web, or some other appropriate channel/medium. A basic knowledge of computers and some background in music and/or musical theory would be helpful but is not required.

CIS 120 Advanced Principles of Information Systems (3) The continuation of CIS 100. Topics include graphics, simple software and hardware management, operating systems, presentation graphics, database applications and current issues in computing and information science that have an impact on today's society. Hands-on modules include projects with current operating systems, a database management system and a collaborative project integrating concepts and techniques learned over the semester. Prerequisite: CIS 100 or Permission of Instructor.

CIS 125 Principles of Information Systems II (4) This course is the second course in sequence for CIS majors that will expand concepts and knowledge from CIS 100 and go further into computing principles and advanced application use. Topics include image editing tools, software and hardware management tools and techniques, operating systems, presentation graphics, database applications and current issues in computing and information science that have an impact on today's society. Hands-on modules include projects with current operating systems, a database management system in a collaborative project throughout.

CIS 130 Foundations of the Internet (4) Students will be introduced to Internet communication concepts and principles. Topics include networking basics, protocols, UNIX commands, file management, remote access, and file transfer. Additionally, students will learn beginning HTML, editors, image editing for Web optimization, and Web page content evaluation. Students will be given a network account for publication of their Web pages. Students will be expected to have knowledge of basic computer skills.

CIS 151 Technology and Organizations (3) This is a course on the impact of technologies related to work and organizations. It addresses both the unintended and intended outcomes of technology. Students examine the changing nature of time demands, the relationship between the organization and its members, the “labor saving” device, quality of work life, computer misuse, repetitive strain injuries, and other topics.

CIS 230 Web Site Design and Development (4) This course will expand upon CIS 130 and will focus on principles of design in the authorship of Web pages. As the focus shifts from basic Web page creation to designing full Web sites, so too will the tools shift from HTML editors to WYSIWYG editors. A topic of discussion will be the issue of accessibility. Further development topics include intermediate to advanced HTML code, intermediate graphics manipulation, JavaScript, Flash and other multimedia, and an introduction to dynamic content. Prerequisite: CIS 130.

CIS 231 Advanced Web Servers (4) Students will learn advanced Web management techniques, with an emphasis on server-side issues. Students will add interactivity to their Web sites through the use of forms and server side scripting. A further exploration of dynamic content will be included. Additionally, students will work with server side databases, including stored procedures. Finally, students will configure and manage a Web server, including virtual hosting, troubleshooting and security. Prerequisite: CIS 125 or Permission of Instructor.

CIS 255 Database Design and Development (3) The fundamentals of database design and implementation are introduced with an emphasis on data relationships. Utilization of a Database Management System (DBMS) and its components will be covered, along with Structured Query Language (SQL) and data security techniques. Prerequisite: CIS 120 or Permission of Instructor. (Effective through fall 2009 only.)

CIS 271 Internetworking I (4) An introduction to the fundamentals of networking. Students will learn the fundamentals of installing, programming and troubleshooting a network based on the OSI (Open System Interconnection) model. Students will be introduced to IP and TCP/IP addressing, including subnet addressing. The hardware components of basic networks, including router, will be covered, along with basic network topologies and designs. Prerequisite: CIS 125 or Permission of Instructor. 3 hours lecture and a 2-hour lab.
CIS 272 Internetworking II (4) The continuation of CIS 271. The students will be introduced to advanced networking concepts. Topics include LANS, WANS and other types of regional networks. Students will learn to segment networks with bridges, routers and switches. Students will also be instructed on configuring and monitoring various types of networks. After successful completion of this course, students will be qualified to pursue a number of industry-standard certifications, including Cisco Certified Networking Associate (CCNA) and Computing Technology Industry Association (CompTIA) Networking certifications. Prerequisite: CIS 271. 3 hours lecture and a 2-hour lab.

CIS 286 Systems Analysis and Database Design (3) A capstone course for Computer Information Systems majors, this seminar type course will require the student to integrate techniques and concepts learned from other courses. A thorough, concise study of a simulated environment will be used to do a system design including documentation and an actual database design. Data gathering, planning, process-mapping, design and cost/benefit analysis will be utilized. A modern, structured, data base language will be used for implementation. Prerequisite: CIS 125 or Permission of Instructor.

CIS 291 Information Technology Support I (4) This course will prepare students to work with users of computer software and hardware. Topics include basic hardware components, configurations, installations, troubleshooting, preventative maintenance, safety concerns, and customer service issues. Software issues such as installation and upgrading, BIOS configurations and settings, diagnostic tools and maintenance will also be covered. This detailed hands-on approach will prepare students to take the A+ certification examination administered by the Computer Technology Association (CompTIA). There will be no experiential credit granted for this course. Students will receive 3 hours of instruction and 1 lab hour per week. Prerequisite: CIS 125, or Permission of Instructor.

CIS 292 Information Technology Support II (4) A continuation of CIS 291, this capstone course will prepare the student for working with, and training users in the use of modern software and hardware. Students will learn hardware and software maintenance techniques, including advanced troubleshooting, network and desktop security, and software maintenance. In addition, students spend 30 hours during the semester as an unpaid intern at a local business or non-profit organization troubleshooting hardware and software problems, doing technical research, and learning about the organization they’re working at. There will be both individual and team assignments. There will also be no experiential credit granted for this course. Students will receive 2 hours of instruction, and perform 4 hours of internship practicum per week. Prerequisite: CIS 291 or Permission of Instructor.

CSC 110 Program Design and Development (4) This is a language dependent introduction course on computer program design and development. Emphasis is on the identification and solution of business problems through systems of computer programs. Programs are described and designed through such tools as program flowcharts, structure charts, and pseudocode. Within this framework, programming languages are treated as tools which can be selected, as appropriate, to implement the designs.

CSC 111 Fundamentals of Computing I (4) This course provides the foundation for a program of study in computer science. It introduces the discipline of computing and the roles of professionals. A contemporary high-level language with appropriate constructs for structured design and structured types is presented. It integrates an introduction to algorithm design, an understanding of abstraction applied to data types and structures, and an appreciation of imperative and object-oriented programming. Programming assignments are an integral part of this course. Prerequisite: CSC 110 or CIS 121 or Permission of Instructor.

CSC 112 Fundamentals of Computing II (4) This course develops the discipline of computing and the roles of professionals by introducing software engineering early in the learning process. This course formally presents abstract data types (ADTs). The ADTs presented are stacks, queues, lists, trees, graphs and tables. Simple sorting and searching techniques, along with their efficiency are studied. The use of pointers and recursion is covered. Programming assignments are an integral part of this course. Prerequisite: CSC 111.

CSC 162 Visual Basic I Programming (4) This course covers the manner in which the computer is used to solve problems. Lectures cover the style and techniques necessary to solve problems using the Visual Basic programming language. Object-oriented programming (OOP) will be covered. This course will allow students to take advantage of the many new capabilities of building applications in a graphical user interface (GUI).

CSC 211 Computer System Organization (4) This course emphasizes the organization and operation of real computer systems at the architectural level. The mapping of statements and constructs in a high-level language onto sequences of machine instruction is studied, as well as the internal representation of simple data types and structures. Topics include the fetch/execute cycle, bus structures, memory hierarchy, addressing modes, and subroutines. Alternative architectures, such as vector and parallel models, are presented. Three lecture hours per week. Prerequisites: CSC 111, MAT 161.
CSC 221 Software Engineering (4) This course is the capstone course for the AS degree in Computer Science. The course focuses on software engineering and requires a major software project. Topics include: object-orientation, software design tools and techniques (such as data flow diagrams, structure charts, CRC cards, algorithms, pseudocode), software reuse, software test strategies, and documentation standards. Prerequisite: CSC 112.

CSC 222 Game Programming (4) This course is an introduction to game programming techniques and gaming development. Topics include 2D graphics and code generated animation, sound technologies, interactivity, and multi-player games. Prerequisite: CSC 111 or CSC 264 or Permission of Instructor.

CSC 250 Client/Server Operations (3) An introduction to the operating system for intra and internets. Students will be introduced to the architecture and systems software behind a client/server environment, and learn how to configure, monitor and manage a network. Specific topics include internet protocols, shells, scripts and daemons. The Unix operating system will be used to illustrate a modern multi-user system. This course is intended for students wishing a higher level understanding of operating systems and students enrolled in the Web Technology Certificate. Prerequisite: CIS 130 or CMT 231 or CIS 271.

CSC 255 Database Design and Development (3) The fundamentals of database design and implementation are introduced with an emphasis on data relationships. Utilization of a Database Management System (DBMS) and its components will be covered, along with Structured Query Language (SQL) and data security techniques. Prerequisite: CIS 120 or Permission of Instructor. (Effective beginning Spring 2010.)

CSC 263 C++ Programming (4) An introduction to the C++ language which provides software developers with an “extendable” language in which abstract data types suitable for a given application can be created and then used as naturally as built-in data types. While based on the C programming language, C++ provides data and function encapsulation, function overloading, inheritance, strong typing, and other features needed for object-oriented programming (OOP). This makes C++ a true high-level language suitable for professional software engineering. The language constructs and OOP methods are introduced with a series of examples of increasing sophistication which are the basis of project assignments. Four lecture hours and one optional recitation hour per week. Prerequisite: CSC 110 or Permission of Instructor.

CSC 264 Java Programming (4) Java is a different type of object-oriented language in that it supports a minimal set of programming language constructs that reflects the technical advances in programming methodology over the last fifteen years. This course presents Java expressions, variables, methods, classes, objects, abstraction, overloading, inheritance and applets. Prerequisite: CSC 110 or Permission of Instructor.

CSC 265 Visual Basic Programming II (4) This course builds upon the fundamental topics explored in CSC 162. More advanced topics involving object oriented programming (OOP) will be studied. This includes Graphical User Interface (GUI); File and Database Management; ActiveX controls; Networking; Internet and World Wide Web applications; Multimedia applications; and Dynamic Data Structures. Prerequisite: CSC 162 or Permission of Instructor.

CSC 280 C#.Net Programming (4) This course focuses on the language and programming fundamentals of the C# language and object-oriented programming, in the context of the .NET development environment. Topics covered will include: the .NET platform including common language runtime and framework, Visual Development Environment, Object-Oriented Programming, C# Language and Application Structure, basic GUI constructs, and basic concepts of XML. This course may not be used to fulfill a Liberal Arts elective. Prerequisite: CSC 112 or Permission of Instructor.

Counseling

CNL 175 Career Exploration (3) This course is intended to help students explore the process of choosing, preparing for, and advancing in a career. The course has an emphasis on the long-range and continual process of career decision making, career growth, and the exploration of a chosen life work and its life style. Students will use the information and resources of the Counseling Center to describe the world of work: its structure and organization, the demands imposed upon individuals, and the rewards and benefits it bestows. Elective for all curricula. Not open to students who have taken GEN 154.

CNL 270 Job Search Skills (1) Intended to help students develop job search techniques by using a systems approach to job hunting. Emphasis will be given to the development of job-hunting philosophy and to self-assessment so that students can identify their strengths. Sources of job leads will be covered, together with methods of investigating these leads. Resume preparation, letters of application, interview techniques, and follow-up letters will be covered in depth. On-the-job strategies will be discussed. Recommended for full-time sophomore students or students about to enter the job market.
Criminal Justice

FOR MORE INFORMATION, CONTACT THE CRIMINAL JUSTICE DEPARTMENT IN MAWHINNEY HALL, ROOM M280, (315) 498-2341.

CRJ 101 Justice System (3) A comprehensive overview of the relationships among police, courts, prosecutors and corrections as they interact to deal with criminal behavior. Required of all Criminal Justice majors. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 102 Introduction to Criminal Law (3) An in-depth study and historical approach to the development and understanding of criminal law. A survey of the basic elements required to classify occurrences as crime. Classification of crimes with respect to the segments of society they affect. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 106 Juvenile Delinquency (3) Combines an orientation to the causes, treatment, and prevention of juvenile delinquency emphasizing the contributing factors of child abuse, school failure and low self esteem. An examination of the methods of handling juvenile offenders by the police, interviewing techniques, screening and referrals to social agencies are covered. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 107 Women and Crime (3) Women and Crime is designed to acquaint the student with issues affecting women involved in crime and the Criminal Justice System. The etiology, extent and nature of female crime will be discussed. The involvement of women in each phase of the criminal justice system from arrest, sentencing, and corrections will be studied. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 108 Police Community Relations (3) Designed to explore the interpersonal relations of police officers (male and female) as they deal with various unique and identifiable community ethnic and racial groups. The traditional role expectations of Law Enforcement will be assessed in light of changing community demands for protection and service. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 112 Introduction to Law Enforcement (3) The history and development of law enforcement in modern society and the various systems of police control; philosophical aspects of police service with an overview of crime and police problems; the processes of justice and constitutional limitations on law enforcement; organization and jurisdiction of local, state, and federal agencies; survey of professional career opportunities. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 122 Introduction to Corrections (3) An introductory course focusing on the development, organization, and effectiveness of corrections. The legal rights of the probationer, the inmate, and the parolee are examined in detail, providing both the student and practitioner the basis for understanding future developments in corrections. Observations are made as to the effectiveness of modern rehabilitation techniques, obstacles to correctional progress, and strategic errors made in correctional reform. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 132 Introduction to Security (3) Historical background of security, nature and scope of private security functions in a modern society, the basic principles of physical security guard services - contract or proprietary, internal loss prevention, defensive systems, electronic devices, fire prevention and safety, the security function in the corporate structure, bomb procedures, hospital security, disaster planning, polygraph procedures, loss prevention and retail theft, career opportunities in the security profession. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 142 Criminal Investigation (3) Investigative methodology in the field of crime, modus operandi, sources of information, crime scene search and recording, collection and preservation of physical evidence, interviews and interrogation, scientific aids, observation and description, case preparation, testimony in court. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 201 Criminology (3) Historical and contemporary viewpoints as to the causes of crime are discussed and debated to allow the student a complete understanding of the complex question as to “how the offender should be treated.” Social factors, crime in the community, and cross-cultural references are presented along with case studies of criminals and their motivation for behavior. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 202 Ethics in Police Work (3) An analysis of the problems involved in formulation of ethical standards for police departments; the legal and social basis of such standards of ethics; various considerations relative to public service involved in such a formulation; its effect upon the rights of individuals and groups and upon the ultimate concepts of police service. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.
CRJ 204 Criminal Justice Management (3)
Evolution of theories of organization and administration of justice agencies; structure of management; relationship of line, staff, and auxiliary functions; administration of staff units; planning and research functions; staff conferences and completed staff work; communications; personnel administration; decision-making; policies; administrative survey techniques and projects. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 206 Juvenile Justice System (3) The main focus of CRJ 206 will be Family Court proceedings. It will explore the circumstances surrounding what happens to a youngster from being taken into custody to adjudication and placement. It will cover the child's passage from detention through Family Court proceedings, i.e., intake, proba- and referral to community agencies. Types of placements will be explored, i.e., public vs. private institutions, their criteria for accepting children and the need for follow-up counseling and/or family therapy upon the youth's release and return to society. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 207 The Sexual Trafficking of Children (3) An examination of the devastating effects of child pornography and the sex trade of children in the U.S. and other countries. An attempt to understand the motivation of the pedophile and his use of children for sexual gratification, his chances of being rehabilitated, and the possible causes of his behavior. Speakers with special expertise in counseling the offender will make presentations - personnel from the Rape Crisis Center, City and Sheriff's Department Abused Person Units and others. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 208 Managing Delinquents in Detention (3) A presentation of methods of modifying and controlling surface behavior of aggressive youth in detention. Students will learn how to communicate with disturbed and confused individuals. The course will also enhance student's awareness of the complex aggressions which block the channels of communication when a human being is frightened or frustrated. Students will explore methods of controlling the acting out behavior of an incarcerated individual so as to maintain personal dignity and to develop a sense of rapport with the person incarcerated. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 210 Terrorism and the Criminal Justice System (3) This course introduces the student to the study of terrorism. It will focus on both domestic and foreign varieties of this unique form of organizational crime and its implications for the American criminal justice system. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 212 Organized Crime and Society (3) A systematic exploration of theoretical and practical issues pertinent to organized criminal activity. The organizational structures of traditional and non-traditional groups are studied as well as the historical background beginning in the nineteenth century. The impact on law enforcement is thoroughly reviewed with special emphasis on illegal drug trafficking. The relationships between drug use and crime is examined from the legal and societal viewpoint. Additionally, the relationship between the political environment and organized crime, including the infiltration of legitimate business, is studied. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 215 Criminal Law (3) A study of the scope, purpose, definition, and classification of crimes. Consideration is given to the more common offenses under the Penal Law. A concern for criminal intent, acts of omission and commission, arrest, and search and seizure, along with an introduction to the Criminal Procedure Law, is emphasized. The rules of evidence and their application to proper law enforcement will also be discussed. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 216 White Collar Crime (3) An examination of major issues and current problems that are associated with occupational and non-occupational criminal behavior. Public policy and methods of prevention are explored, and a review is conducted of various celebrated investigations which include examples of corporate crime, state authority crime and computer crime. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 217 Crime and the Media (3) The media has a significant impact on the criminal justice system. This course will investigate the interplay among various aspects of the media and the criminal justice system. Students will have the opportunity in class to examine products of the media that relate to police, courts and corrections. The media's portrayals of a diverse population and the subsequent impact on the functioning of the criminal justice system will be explored. The course will analyze the legal and ethical issues faced by both the media and the criminal justice system in the administration of justice in the United States. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 218 Drugs and the Criminal Justice System (3) An examination of the impact of drugs on the criminal justice system including the police, courts and corrections. The history of drugs and alcohol prohibition will be studied within the context of traditional crime and organized crime. Other topics will include the drug problem in relationship to the crime rate, national criminal justice policy strategies and the infiltration of legitimate enterprises by criminal drug organizations. Students will research relevant topics and report their findings as well as their conclusions based upon their research. This
course has a criminal justice focus and will not fulfill the New York state mandate for drug and AIDS education for teaching certification of education majors. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 235 Private Investigation (3) Explores the entire scope of procedure and methods necessary in understanding the complex mechanism involved in the field of private investigation. Private Investigation will examine the world of the “private eye” and what laws govern these activities. An in-depth study will be made in intelligence gathering, the polygraph, records and reports, undercover work, surveillance, employing photography as evidence, and the use of actual case histories to illustrate various techniques available to the private investigator. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 240 Capstone Course in Criminal Justice (1) This capstone course is the culmination of the criminal justice student’s academic experience. It serves to synthesize the knowledge gained from each course taken within the criminal justice curriculum and better prepare the graduate to continue on to upper-division studies in the discipline or for entry-level career positions in the criminal justice system. Among other requirements, the student will develop and prepare a research project that will result in an end of semester presentation to the class. Prerequisites: Criminal Justice matriculation, Permission of Instructor and completion of 42 credits hours including all required Criminal Justice courses, ENG 103, ENG 104, and a Communication requirement.

CRJ 241 Special Investigations (3) Investigation methodology in the field of crime. Special attention is given to the various aspects of homicide investigation. Also covered is the area of organized crime, forgery, and white-collar crime. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 243 Criminalistics I (3) The collection, preservation, analysis, and interpretation of physical evidence of various types, including latent fingerprints, footprints, tire tracks, tool marks, blood, hair, fabrics, etc.; narcotic identification, fingerprint classification, photography, spectrographic analysis, court presentation, and expert testimony. This course is designed to aid in the training of investigators. It does not qualify one as a criminalist or laboratory technician. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 244 Criminalistics II (3) Concerned with advanced microscopic and chemical methods of crime detection. Blood analysis, drugs, blood alcohol, explosives, poisons, ultraviolet and infrared examinations, advanced optical and instrumental methods of analysis are covered. Special problems and topics of interest in criminalistics are covered. Prerequisite: ENG and RDG placement must be at college level or Permission of Instructor.

CRJ 252 Internship (3) A practicum designed to broaden the educational experience of students through appropriate observational work assignments with governmental agencies and private firms. Students may choose to select an internship from either Law Enforcement, Corrections, or Community Service in related Justice agencies. Prerequisite: ENG and RDG placement must be at college level, and Permission of Instructor.

Economics

FOR MORE INFORMATION, CONTACT THE SOCIAL SCIENCES DEPARTMENT IN MAWHINNEY HALL, ROOM M390, (315) 498-2301.

ECO 103 Modern Economic Issues (3) In this course, students will discuss current micro and macro economic issues in an intuitive, non-mathematical format. A wide range of topics are covered with an emphasis on the global economy. This course satisfies the Humanities and Social Sciences Global Awareness requirement and is open to all students.

ECO 104 Personal Finance and Consumer Economics (3) This course is an introduction to financial planning and consumer practices. Topics include: money management, investments, tax planning, estate planning, insurance, real estate, and the purchasing and financing of consumer goods and services.

ECO 160 Poverty, Inequality and Discrimination (3) This course covers various causes of poverty in the U.S. (relative poverty) and in developing nations (absolute poverty), as well as policies, programs, and proposals for improvement. Inequality, stratification, and discrimination are also discussed. This course satisfies the Humanities and Social Sciences Global Awareness requirement and is open to all students.

ECO 203 Principles of Macroeconomics (3) This course is an introduction to microeconomics and applications, stressing consumer and producer behavior, price determination, trade, market structures, and the policies that shape overall economic activity and determine productivity, standards of living, economic growth, employment, inflation, interest rates, and business cycles. Prerequisite: MAT 087/088 or equivalent.

ECO 204 Principles of Microeconomics (3) This course is an introduction to microeconomics and applications, stressing consumer and producer behavior, price determination, trade, market structures, and the policies that shape overall economic activity and determine productivity, standards of living, economic growth, employment, inflation, interest rates, and business cycles. Prerequisite: MAT 087/088 or equivalent.

ECO 207 International Economics (3) A study of: (1) the theories of trade-comparative advantage and the factor proportions theory; (2) trade policies - tariffs, quotas and subsidies; (3) trade liberalization and trade blocks - EEC and NAFTA; (4) multi-national corporations and labor/capital movements and technology transfers; (5) exchange rate systems and the impact of trade and monetary arrangements on developing countries will also be studied. Prerequisite: ECO 203 or ECO 204 or Permission of Instructor.
ECO 209 Money and Banking (3) A study of the nature and functions of money and finance, this course outlines the institutional framework of the American financial system, describes and explains the special roles played within the system by commercial banks and the Federal Reserve System, explores the interrelationships between the monetary sector and the rest of the economy and the ways in which monetary policy may be used to assist in the attainment of society's economic goals. Prerequisite: ECO 203 or Permission of Instructor.

ECO 219 Fundamentals of Investments (3) This course examines the relationships between risk and return, asset allocation, portfolio theory, and investment vehicles including stocks, bonds, mutual funds, options, and futures. Prerequisite: ECO 203 or ECO 204 or Permission of Instructor.

Education

FOR MORE INFORMATION, CONTACT THE HUMAN SERVICES AND TEACHER EDUCATION DEPARTMENT IN MAWHINNEY HALL, ROOM M280, (315) 498-2341.

EDU 155 Developmental Care of Infants and Toddlers (3) An overview of methods of fostering the development of infants and toddlers, emphasizing the caregiver role in planning environment and interacting with children. In order to complete some assignments, students must have a child under three years of age available for observation and interaction.

EDU 158 Infant-Toddler Development (3) This course examines all domains of infant and toddler development including: prenatal development, language development, cognitive development, motor development, and social/emotional development. Atypical development and the importance of early intervention will also be presented and discussed. In addition, the observation and caregiving skills necessary for a quality infant and toddler program will be presented. In order to complete assignments, students must have a child available to observe. Prerequisite: English and Reading placement at college level.

EDU 172 Classroom Management (3) This course explores guidance theories, applications, goals, techniques, and factors that influence teacher expectations and classroom management issues. The effects of culture and student diversity on the classroom environment will also be explored. Classrooms serving children ages two to twelve years will be addressed.

EDU 174 Teaching Fieldwork: Instruction and Seminar (3) This course orient students to teaching in an inclusive special education classroom and to working with families. Students will work a total of 100 hours over the semester, dividing their focus among the inclusive classroom, a family with a child with disabilities, and the community. The weekly seminar is used to discuss fieldwork experiences, teaching concepts and skills. A medical examination, fingerprinting, and Child Abuse Central Register clearance may be required. Prerequisites: EDU 182 and 230; co-requisites: EDU 272 and 273.

EDU 180 Early Childhood Education: An Introduction (3) This course is designed to introduce prospective early childhood (Birth-2) and childhood (1-6) education teachers to the historical, philosophical and cultural approaches to the study of early childhood education. Students will examine current issues and challenges and begin development of their professional education skills and beliefs. A field component will be required. Prerequisite: English and Reading placement at college level.

EDU 182 Child Growth and Development (3) This is a specialized course in child development which studies the emotional, social, cognitive and physical development from the prenatal period to pre-adolescence. Students will use observation and assessment techniques to build an understanding of growth and development. Multiple influences on child development and learning, including the sociocultural context of development, will be explored. Prerequisite: English and Reading placement must be at college level.

EDU 183 Observation and Assessment of Young Children (3) This course prepares students to use systematic observations, documentation, and other assessment techniques to understand young children’s growth and development. Observation and assessment will focus on physical, cognitive, language, and social/emotional development. Students will compile various observations and assessments in a study of one child’s development over the course of the semester. An additional component of the course will focus on observation and assessment of early childhood education environments. Prerequisites: EDU 180 and 182, or EDU 180 and PSY 204.

EDU 184 Early Childhood Field Instruction and Seminar I (3) This first-level fieldwork course offers students the opportunity to apply theories learned in previous early childhood education courses to practice. Under the supervision of an experienced early childhood teacher, students develop basic interaction, guidance and supervision skills. The course also focuses on implementing and evaluating developmentally appropriate activities for children. The weekly seminar is used to discuss fieldwork experiences, teaching concepts and skills. Fieldwork must be completed at the Children’s Learning Center on campus, an NAEYC accredited program or other program approved by the instructor. A medical examination, fingerprinting and Child Abuse Central Register clearance are required. Prerequisite: EDU 182 or Permission of Instructor; co-requisite: EDU 281.

EDU 185 Teacher and Parent Relationships (1) Focus is on helping teachers develop positive relationships with parents of children in their pro-
grams through informal communication, parent conferences, encouraging parent involvement with the program, and working together to foster the child's development.

EDU 230 Human Services With Diverse Populations (3) This course examines the domestic and global contexts of diversity and the impact of ethnicity, race, gender, ability/disability, socio-economic class and sexual orientation on our lives. Students will develop self-awareness regarding their own feelings, assumptions and behaviors in relation to others different from themselves and will explore how these impact their personal values, belief system and interactions with others. Prerequisite: English and Reading placement must be at college-level.

EDU 272 Perspectives on Disabilities: Child, Family, School, and Community (3) Students will explore the traditional and emerging roles and practices of diverse families, school reform efforts, models for effectively developing collaboration, cooperation, and partnerships with school and community agencies. Prerequisites: EDU 182 and 230; co-requisites: EDU 174 and 273.

EDU 273 Principles of Inclusive Education (3) Students examine various strategies that can be used in inclusive classrooms to teach students with diverse needs. Best practices and current controversies in inclusive education will be examined and discussed. Students will also develop an understanding of their philosophy of inclusive education. Prerequisites: EDU 182 and 230; co-requisites: EDU 174 and 272.

EDU 275 Cultural Foundations of Education (3) This course focuses on philosophical, historical and cultural approaches to the study of education in the United States. Current educational concerns that affect teaching and schools will be studied. An anti-bias perspective will be emphasized. Students will be required to complete a field component. Prerequisite: PSY 204 or PSY 207 or EDU 182.

EDU 280 Language and Literacy Development in Young Children (3) This course examines the development of language and literacy in young children from birth through the primary years. Students will explore theoretical foundations of early literacy development and the implementation of various models to effectively support young children as readers and writers. Other topics include: working with families to support early literacy development, selecting quality children's literature, assessing early literacy development, integrating literacy throughout the curriculum and adaptations for individual children in diverse and inclusive settings. Prerequisite: EDU 182 or EDU 158 or PSY 204 or PSY 207.

EDU 281 Curriculum Development (3) The theoretical basis for setting educational goals and planning developmentally appropriate experiences for children from birth to eight (with emphasis on the later years) is studied, along with methods of planning, supervising, and evaluating these experiences. Prerequisite: EDU 182 or PSY 204; co-requisite: EDU 184.

EDU 282 Family, School and Community (3) This course examines the contexts in which children develop, including family, school, and community, and how teachers can work together with parents and community resources to foster the optimum development of children. Prerequisites: EDU 182 and PSY 103 or SOC 103 or Permission of Instructor.

EDU 283 Early Childhood Field Instruction and Seminar II (3) This optional second-level fieldwork course builds on the competencies developed during the first-level fieldwork experience. Particular attention is given to assuming classroom teacher responsibilities of planning, supervising, and evaluating curriculum activities that are developmentally appropriate as well as integrated. The weekly seminar is used to discuss fieldwork experiences, teaching concepts and skills. A medical examination, fingerprinting, and Child Abuse Central Register clearance are required. Prerequisite: EDU 184 or Permission of Instructor.

EDU 285 Early Child Special Education: Introduction (3) This course provides an introduction to special education in early childhood and the early primary grades. The legal foundation of special education, public laws, the New York State Special Education process and contemporary models and issues in the field of special education will be examined. Students will explore the causes, characteristics and educational implications of disabilities. The course will also focus on selecting/modify appropriate teaching strategies in inclusive early childhood environments and in early primary classrooms. Strategies for working effectively with families and early childhood special education professionals in the context of early childhood programs will also be examined. Exploration of personal competencies and ethical issues in special education will be explored. A field component is required. Prerequisite: EDU 182, PSY 204 or Permission of Instructor.

Electrical Engineering Technology

FOR MORE INFORMATION, CONTACT THE ELECTRICAL TECHNOLOGY DEPARTMENT IN THE WHITNEY APPLIED TECHNOLOGY CENTER, ROOM W131, (315) 498-2451.

ELT 100 Foundations of Electronics (4) An introductory course in instrumentation and laboratory skills for technology students. Various aspects of electrical circuit measurement techniques are investigated in the laboratory, with emphasis placed on component identification, signal tracing, soldering and troubleshooting. Each student will be required to purchase several electronics kits for assembly in the laboratory, as designated by the instructor. Three class hours and a two-hour laboratory. Co-requisite: MAT 087 or Permission of Instructor.
ELT 101 Electrical Power Distribution and Overhead Construction (3) This course primarily deals with concepts and skills that are necessary for the construction and maintenance of overhead electric power distribution systems. Topics include: safety, performing construction from an overhead position on the distribution poles, use of ropes and rigging equipment, and operation and installation of transformers. The course is taught at the National Grid Training Laboratory in Liverpool. Two hours of lecture and two hours of laboratory. Prerequisite: Permission of Instructor.

ELT 120 Ethics in Engineering and Technology (3) This course is an investigation of fundamental ethical issues relating to the fields of engineering and technology, focusing on organizing principles and ethical theory to frame problems that are typically encountered in the engineering industry. Topics to be discussed include: professional responsibility and accountability; honesty and integrity in the workplace; intellectual property; conflicts of interest; environmental issues; risk, safety and product reliability; legal liability; and diversity in the workplace. Contemporary case studies will be examined and debated in the context of such traditional philosophical schools of thought as utilitarianism and Kantian ethics. Prerequisite: ENG 103 or Permission of Instructor.

ELT 131 Electrical Circuits (4) In this course students learn to analyze DC and AC passive circuits using Ohm’s Law, Kirchhoff’s laws, and Superposition. RC and RL circuits are analyzed for impedance and phase angles. Troubleshooting, analysis by computer simulation using simulation software, and telecommunication applications are stressed throughout. Prerequisites: MAT 107, CMT 110.

ELT 141 Circuits I (4) Course topics include the introduction and use of DC and AC voltage sources along with resistors, capacitors and inductors in series, parallel and series/parallel circuits. Circuits are analyzed using Ohm’s law, Watt’s law and Kirchhoff’s current and voltage laws. The course concludes with the application of the basic concepts to high pass, low pass, band pass and band stop filters. Laboratory exercises emphasize the construction, analysis, measurement and trouble shooting of basic RLC circuits using state-of-the-art laboratory equipment and computer-simulation software. The use of algebra, complex numbers, engineering notation and scientific calculators are also covered. Lecture hours and lab hours are required for this course. Prerequisite: Intermediate algebra or equivalent; co-requisite: MAT 143 or equivalent.

ELT 142 Circuits II (4) This is an advanced course in DC and AC circuit theory. Topics addressed in this course review and expand on the concepts from Circuits I (ELT 141). New topics include Thevenin’s, Norton’s and superposition theorems, mesh and nodal analysis, magnetism, and fundamental power concepts. Laboratory exercises emphasize circuit construction, analysis and measurement using advanced laboratory equipment. Lecture hours and laboratory hours are required for this course. Prerequisites: Completion of ELT 141 with a grade of C or better, and MAT 143 or equivalent.

ELT 153 Introduction to Electronics (4) In this course students are taught the ELT 161 respect to amplification, dB, frequency response, and input and output impedance. Opamp applications such as inverting and non-inverting amps, summing amps, averaging amps, and comparators are introduced with emphasis on the uses of these devices in telecommunications. Electro-optical devices, such as LEDs, laser diodes, and photodiodes, are studied including uses in the telecom industry. Diodes and transistors are conceptually introduced. Transformers are introduced in connection with power supplies. Diodes are applied as switches in linear and switching power supplies. The frequency response of passive networks and amplifiers is measured. Cutoff frequencies, rolloff, bandwidth, and magnitude and phase are discussed and visualized via Bode plots. Troubleshooting and analysis by computer simulation software is stressed throughout. Prerequisite: ELT 131, PHY 101.

ELT 161 Electronic Circuits I (4) Introduction to semiconductor theory, devices and circuits. Devices include: diodes, transistors, thyristors and integrated circuits (operational amplifiers & voltage regulators). Circuits include: power supplies, switching and amplifier. Three class hours and a three-hour laboratory. Prerequisite: Completion of ELT 141 with a grade of C or better.

ELT 180 HVAC Electrical Theory and Application (3) This course teaches the fundamental skills of troubleshooting residential and light commercial HVAC electrical system problems. Technicians learn and practice proven diagnostic techniques that they can apply immediately. The goal of the course is to provide technicians with both the skills and confidence necessary to tackle any electrical system malfunction, with emphasis on rapid discovery of the failed component and root cause determination. Prerequisite: Minimum of one year of field experience in servicing and maintaining residential and light commercial HVAC equipment, or Permission of Instructor.

ELT 201 Power Technology (4) This course is an overview of the electric power system from generation to transmission, distribution, and delivery of electric power. Topics include: methods of generating electricity such as hydro, thermal coal, thermal nuclear, solar and gas turbine; transmission system voltages and construction; AC and DC distribution systems; transformers, single phase and three phase banks for common delivery voltages; electric service construction and building wiring methods; and electric safety. The course is taught at the National Grid Training Laboratory in Liverpool. Prerequisite: ELT 101; prerequisite/co-requisite: MAT 088 or Permission of Instructor.
ELT 215 Programmable Logic Controllers (4)
Designed to introduce students to the basic principles that govern the function and operation of the programmable logic controller (PLC). It focuses on the common input and output devices that are typical in sequential and process control applications. Topics include: PLC applications, logic concepts and ladder diagrams, CPU, memories, input/output devices, safety issues, maintenance techniques, I/O and memory addressing, ladder logic programming language, design of relay operated process, and proper installation methods. Three lecture hours and a three-hour laboratory. Prerequisite: CMT 171, ELT 141 or Permission of Instructor.

ELT 257 Electronic Communication (4)
Students practice the analysis and application of advanced electronic circuits as applied to the telecommunications industry. Topics include frequency response of active filters; oscillators; amplitude modulation, frequency modulation, phase locked loops; pulse modulation concepts; introduction to television; theoretical and hands-on troubleshooting of test circuits; and analysis by computer simulation. Prerequisite: ELT 153.

ELT 258 Advanced Electronics (4)
Applications of solid state devices in systems, emphasizing power and industrial control circuits. Included are thyristors, operational amplifiers, timers, voltage regulators, opto-electronics, and motor control. This course may be modified in response to rapid technological changes, to ensure that the most important devices are included. Three class hours and a three-hour laboratory. Prerequisites: ELT 142 and 261.

ELT 260 Independent Study Project (1)
Any project suitable for individual or small group self-study, and approved by the department, may be pursued. Students must be highly motivated and self-directive. The instructor will meet weekly with the students and serve as a resource person. Prerequisite: Variable (consult department chairperson).

ELT 261 Electronic Circuits II (4)
Linear Electronic Amplifier Circuits. Basic amplifier concepts including gain, attenuation, input and output impedances, frequency response, multistage effects and decibels. Devices studied are Bipolar Junction Transistors (BJT), Field Effect Transistors (FET), and Integrated Operational Amplifier circuits. Three class hours and a three-hour laboratory. Prerequisite: Completion of ELT 161 with a grade of C or better.

ELT 265 Communication Systems (4)
This course focuses on radio communications circuits and systems, including tuned amplifiers, mixers, carrier signal modulation, transmission, demodulation, transmission lines and antennas. Emphasis is placed on circuits and concepts common to many types of systems. Circuits of super heterodyne receiver systems are investigated in the laboratory. Three class hours and a three-hour laboratory.

ELT 268 RF Fundamentals for Technicians (3)
Deals with basic concepts in Radio Frequency band. Topics included are: transmission media such as coaxial line, and wave guide relationships for impedance, VSWR, gain, and loss in magnetic and electric fields and “s” parameters. Basic theory and operation of the spectrum analyzer and network analyzer will be discussed. Experiments related to the slotted line and measurement techniques for passive RF components such as couplers and dividers will be demonstrated. The basic operations of the pin, attenuator, divider, and coupler are included in the course. Prerequisites: ELT 142 and 161.

ELT 285 Power Systems I (4)
Review of AC circuit concepts including Kirchhoff’s Laws, Vector Algebra, Phasor diagrams, Magnetism and transformer operation. Polyphase systems including three phase generation, wye and delta connections. Three-phase power. AC and DC rotating machinery. Three class hours and a three-hour laboratory. Prerequisite: Completion of ELT 142 with a grade of C or better.

ELT 289 Cooperative Education (3)
Designed to provide work experience directly related to the student’s field of study. A learning contract, containing specific educational objectives related to work experience and the student’s field of study, is developed by the student and the faculty co-op coordinator. Course requirements include a minimum of 180 hours of work in the student’s field of study, maintenance of a daily log of hours worked and duties performed, attendance at three two-hour on-campus seminars, and a work-related final project. This will allow the student to earn three credit hours. The student can earn a total of six credit hours with additional 180 hours of work experience (without seminars) and an extended final project. The student’s performance will be evaluated by the faculty co-op coordinator on the basis of the objectives in the initial learning contract with a grade of Satisfactory or Unsatisfactory. NOTE: The number of credit hours must be determined at the time of registration. Prerequisite: Approval by the ELT department and the Career and Applied Learning Center.

ELT 299 Advanced Topics (4)
Topics are selected to respond to the particular needs of students and the special preparation needed for career opportunities as they exist at the time of the course offering. Laboratory experience is included if appropriate for the topic. The number of class and laboratory hours is determined by the scope of the topic, with one credit hour for each 15 hours per semester of lecture and one credit hour for 30 to 45 hours of laboratory per semester. Open to sophomore students only. Prerequisite: Permission of Instructor.
Electronic Media Communications

FOR MORE INFORMATION, CONTACT THE ELECTRONIC MEDIA COMMUNICATIONS DEPARTMENT IN THE WHITNEY APPLIED TECHNOLOGY CENTER, ROOM W150, (315) 498-2321.

EMC 101 Introduction to Electronic Media (3) Designed to present an overview of electronic media as public communication. Stresses the importance of broadcasting, cable, and satellite communications at the local and national level. Federal regulation and responsibilities of broadcast licenses are studied, as well as the relationship of broadcasting to the audience, advertising, and public relations. Guest lecturers from industry, corporate communications, and educational broadcasting are scheduled. Open to all students.

EMC 144 Audio/Video Production: An Introduction (4) This course is designed to give the student a basic overview of audio and video production. Theory and terminology are introduced through lecture and hands-on application. The student will be introduced to the skills necessary to operate audio and video equipment in studio settings and begin to develop visual and aural literacy. This course is a requirement for all other Electronic Media Communications production courses. Five lecture/production hours per week. Prerequisite: EMC majors or Permission of Instructor.

EMC 155 Digital Audio Production (3) This course is intended to give the student a practical as well as a theoretical approach to digital audio production. Emphasis is placed on the use of digital audio in sound recording, audio editing, multi-track mixing, and audio processing. The student will be exposed to audio production/editing procedures and techniques. Prerequisites: EMC 144; EMC majors only.

EMC 159 Television Studio Production (4) This course stresses the importance of effective aural and visual communication, teamwork, and problem-solving skills necessary for success in the process of television studio production. Television studio production techniques and disciplines are explained, demonstrated, and applied. This course builds on basic production techniques and skills developed in EMC 144 Introduction to Audio/Video Production by engaging the student in more demanding assignments and more sophisticated production work. Particular emphasis is placed on developing critical thinking and analytical skills, as they apply to production. Five lecture/production hours per week. Prerequisites: EMC 144; EMC majors only.

EMC 160 Radio Station: An Introduction (3) This radio course is designed to introduce the student to the terminology, technology, concepts, and structure of radio broadcast stations. Topics covered will include FCC rules and regulations, station organization, sales, ratings, promotions, control room operations, departmental interrelationships, technological applications and industry trends. Prerequisites: EMC 144; EMC majors only.

EMC 169 Video Field Production (3) This course is designed to introduce the student to the technical and creative requirements of single-camera, video field production. Topics include camera operation, lighting, audio recording for field production and linear (tape to tape) editing, as well as all aspects of pre-production, including story development, scripting, shot list and storyboard creation, site surveys and production planning for location field production. Prerequisites: EMC 144; EMC majors or Permission of Instructor.

EMC 190 Internship I (3) This course is designed to provide work experience directly related to the student’s field of study. The student, working with the faculty co-op coordinator, will develop a learning contract containing specific educational objectives as they relate to that work experience and the student's field of study. Course requirements include a minimum of 120 hours of work in the student's field of study; maintenance of a daily log which includes hours worked and duties performed; participation in resume, cover letter, and interviewing workshops; regular meetings with the faculty coordinator; and a final work-related project determined by the faculty member. Prerequisites: EMC 144 and POI; sophomore-level EMC majors only. Students must have a G.P.A. of 2.5 or higher and obtain the recommendation of an EMC faculty member.

EMC 249 Electronic News Gathering: an Introduction (3) This course is designed to introduce students to the concepts and practices of professional news gathering for electronic media. The role of news in radio and television is explained, with emphasis on identifying and contrasting basic forms of news delivery: 24-hour news, local/network newscasts, breaking news, live updates, etc. Through classroom exercises, students will learn and practice the techniques of determining a story's newsworthiness, researching, copywriting, interviewing, producing, writing to the image and editing a virtual news story. Additional importance will be placed upon ethics and professionalism in electronic news. Prerequisites: EMC 169; EMC majors only.

EMC 251 Sportscasting I (3) This course is designed to present an in-depth study of the world of Sports Communications, concentrating specifically on Fall and Winter Sports (intercollegiate and scholastic levels). Special emphasis will be placed on football, soccer, ice hockey, and volleyball. Radio/TV students will become familiar with the techniques used to research, produce, facilitate, report and analyze sporting events. Special training and actual “hands on” experience in reporting/producing College and area college/high school sporting events is scheduled. Guest lecturers from the Sports Communications field are also scheduled. Prerequisites: EMC 144 and EMC 159; EMC majors or Permission of Instructor.
EMC 252 Sportscasting II (3) This course is designed to present an in-depth study of the world of Sports Communications, concentrating specifically on Spring and Summer (intercollegiate and scholastic levels). Special emphasis will be placed on basketball, baseball, softball, and lacrosse. EMC students will become familiar with the techniques used to research, produce, facilitate, report and analyze sporting events. Special training and actual “hands-on” experience in reporting/producing College and area college/high school sporting events is scheduled. Guest lectures from the Sports Communication field are also scheduled. Prerequisites: EMC 144, EMC 159; EMC majors only or Permission of Instructor.

EMC 259 Digital Video Editing (4) This course is designed to enable the student to become proficient in the technical and creative aspects of non-linear digital video editing and its role in the production process. Editing concepts such as story building and pacing, techniques such as continuity and parallel editing and examples of single-camera, post-produced programs are discussed and analyzed. Planning for post-production and media management are emphasized. Three lecture/two production lab hours per week. Prerequisites: EMC 169; EMC majors or Permission of Instructor.

EMC 260 Radio Station Operations (3) This course provides the basic principles of contemporary radio station programming, focusing on formatting concepts and strategies, marketing, promotion, production, news operations, and the practical applications. Emphasis will be placed on the student's application of programming strategies through the use of the College’s Internet Radio. Prerequisites: EMC 160; EMC majors.

EMC 265 Sound Design and Production for Digital Media (3) This course is designed to introduce students to the technical and creative aspects of loop-based audio production and how it is used in many types of digital media productions. Students will analyze and create audio to be used in media projects ranging from radio programming and television/video programming to DVDs and Web sites. Prerequisites: EMC 155; EMC majors or Permission of Instructor.

EMC 269 Television News Production (4) This course focuses on the skills necessary to create content and produce a weekly television newscast. Methods of news delivery are analyzed, and students will put into practice the theories learned in EMC 249. Students will conduct effective research, practice effective interviewing techniques, and produce, report, and write copy for television news. Students will work in teams to produce a live weekly newscast. Emphasis will also be placed on ethics and professionalism, as well as legal considerations, as they pertain to producing and developing electronic news. Five lecture/production hours. Prerequisites: EMC 249 or Permission of Instructor; EMC majors only.

EMC 275 Producing for Radio (4) This course is a culmination of audio theory and practical skills learned by students in previous radio courses. Students will produce original programming in the areas of news and public affairs, documentaries, sports, college/community interest, and arts and entertainment. Emphasis will be placed on the student's ability to provide informational, educational, and entertainment programming for the college Internet radio station. Three lecture/two production lab hours per week. Prerequisites: EMC 260, ENG/WRN 157.

EMC 276 Media Streaming (3) This course is designed to introduce students to the theory and practice of streaming media via the Internet and telecommunications networks. Students will be required to properly encode and compress audio and video to be used in the streaming process. Various types of video and audio file formats are covered, as well as compression standards. The deployment of media servers, live Web casting, and multiple media player formats will be discussed. A final project will include the encoding and streaming of audio and video media for a Web site. Prerequisites: EMC 155, EMC 259; EMC majors or Permission of Instructor.

EMC 286 DVD Authoring (4) This course provides a hands-on approach to the conceptualization, design, production, and assessment of video projects completed on DVD. The course will focus on strategic planning (including scripting and flow charts), creation of video and audio content, proper encoding of media, file management, creation of interactive menus, proper linking of all media assets within the DVD, and outputting projects to a DVD disc. Topics of discussion will include the history, characteristics, various types, and user interactivity of the DVD format, as well as various types of digital media files and managing those files on a network. Three lecture/two production lab hours per week. Prerequisites: EMC 259; EMC majors only or Permission of Instructor.

EMC 289 Television Producing and Directing (4) This course is designed to build upon and improve the student's studio production skills, to further an understanding of the multi-camera production process, and to become proficient in directing a multi-camera, multi-source studio production. Emphasis is placed on the correct use of television directing terminology. The aesthetic principles of producing, set and lighting design, sound, visualization, and continuity are identified and applied. Five lecture/production hours per week. Prerequisites: EMC 159; EMC majors only.
EMC 290 Internship II (3) This course is designed to provide work experience directly related to the student's field of study. The student, working with the faculty co-op coordinator, will develop a learning contract containing specific educational objectives as they relate to that work experience and the student's field of study. Course requirements include a minimum of 120 hours of work in the student's field of study; maintenance of a daily log which includes hours worked and duties performed; participation in resume, cover letter and interviewing workshops; regular meetings with a faculty coordinator; and a final work-related project determined by the faculty member. Prerequisites: EMC 190 and POI; EMC majors only. Students must have a G.P.A. of 2.5 or higher and obtain the recommendation of an EMC faculty member.

Engineering Science

ENS 201 Digital Logic Design (4) An introductory course in digital logic designed for Electrical and Computer Engineering students. Topics include: number systems, Boolean algebra, minimization of Boolean expressions, combinational and sequential networks, state machine design, and networks for arithmetic operations. Prerequisite: PHY 205. Co-requisite: ENS 208R.

ENS 207 Engineering Mechanics I (Statics) (3) Basic concepts, vector algebra, forces and moments about a point and a line. Free body diagrams, equilibrium conditions in two and three dimensions. Plane trusses, frames and machines. Forces in beams and cables. Application of friction in machines. Centroids and moments of inertia of lines, areas, and volumes. Principal axes and principal moments of inertia, Mohr's circle. Prerequisite: PHY 105.


ENS 208R Engineering Mechanics II Recitation (1EQ) Recitation for ENS 208 course.

ENS 210 Electrical Circuit Analysis (4) A first course in basic circuit theory. Topics covered include: circuit definitions, voltmeter relationships for circuit elements, Kirchhoff's laws; resistive circuit analysis including loop and nodal analysis, network theorems; transient behavior of R-L, R-C, and R L-C circuits; sinusoidal steady-state analysis and phasors; introduction to active devices such as transistors and operational amplifiers and applications of network theorems to circuits with active devices. Prerequisite: PHY 205.

ENS 212 Mechanics of Materials (3) First course in the development of the mechanics of deformable bodies, primarily for engineering students. Topics include: theories of stress and strain, deformations, Hooke's law, axial loads, shearing loads, bending loads, Mohr's Circle, shear and bending moment diagrams, elastic stability and deflection of beams. Prerequisite: ENS 207; co-requisite: MAT 264.

English

ENG 099 Basic Composition (3EQ) This is a developmental writing course for students who need more individualized instruction and intensive practice in composing and editing short expository prose than is provided in ENG 103. This course does not satisfy Freshman English credit requirements. (Additional tutoring in the Writing Skills Center may be required.) This foundational course provides 3 equivalent credit hours toward your full-time load and is based on 3 equivalent credit hours; it carries 0 credit hours of academic credit. Prerequisite: Onondaga Community College placement test.

ENG 103 Freshman Composition and Literature I (3) This course develops the skills and forms necessary for writing college-level expository prose. Methods for developing content; organizing information and ideas; and presenting that material to a reader clearly, concisely, and coherently will be taught. Various readings may be used as a source of models and ideas. Prerequisite: Onondaga Community College placement test and/or satisfactory completion of ENG 099 or ESL 116 (formerly ESL 103).

ENG 104 Freshman Composition and Literature II (3) Teaches students to comprehend, respond to and use the ideas of others in their own writing. Skills such as analytic and critical reading and writing, summarizing, and paraphrasing are developed through the study of literature. Term paper form will also be taught. Prerequisite: ENG 103.

ENG 121 Introduction to Journalism and the Mass Media (3) Designed to increase students' awareness of the mass media and its impact on society: development of the media, including writing types and styles; ethical and social problems; study and practice of journalistic writing; analysis of major news media with emphasis upon newspapers. Prerequisite: ENG 103.

ENG 123 Newspaper Production (1) Familiarizes students with all aspects of newspaper production and provides practical application of journalism theories with participation in the activities of the student newspaper. Students attend weekly meetings, write articles, etc. Includes one-half hour seminar/discussion.
ENG 157 Electronic Media Writing (3) This course helps students to master the diverse writing styles and formats used in writing for broadcast on radio, television and cable. These include public service announcements (PSAs), station IDs, promotional announcements, script formats, commercials, news copy and program materials. Emphasis is on developing broadcast copy style, distinguishing words directed toward the ear and the eye. Prerequisite: ENG 103.

ENG 203 World Literature I (3) The course sequence (203-204) chronologically surveys major works of Western literature and its relationship to the cultural trends of the period. A wide and varied range of readings is available to the student. The survey should lead to an awareness of the objectives and forms of literary art and to a knowledge of Western culture as great writers have mirrored it. Course covers the period from the Ancients to the Renaissance. Prerequisites: ENG 103, ENG 104.

ENG 204 World Literature II (3) A continuation of ENG 203 from the Renaissance to the present, which may include works from Petrarch, Shakespeare, Cervantes, Flaubert, Sartre, and the moderns. Either semester may be taken independently. Prerequisites: ENG 103, ENG 104.

ENG 206 Creative Writing-Poetry (3) Students will write and revise original poetry, considering language, imagery, rhythm, structure, point of view, story, theme, and other poetic elements. Students will study the styles and techniques of classic and contemporary poets. They may also be required to attend poetry readings in the area. Prerequisite: ENG 104, or Permission of Instructor.

ENG 207 Creative Writing-Fiction (3) Students will write and revise original fiction, both segments and complete stories, using language, dialogue, character development, action, setting, and plot in the service of a theme or message. Students will read and study the styles and techniques of classic and contemporary writers of fiction. They may also be required to attend readings of fiction in the area. Prerequisite: ENG 104, or Permission of Instructor.

ENG 208 Creative Writing-Drama/Script (3) Students will write and revise original, narrative scripts for the stage or screen, using dialogue, character development, action, setting, and plot in the service of a theme or message. Students will view and study the styles and techniques of classic and contemporary scriptwriters or playwrights. They may also be required to attend professional film or theatre productions in the area. The Master Schedule for each semester will specify if the course focuses on scripts for television and film screen or for the theatre. Prerequisite: ENG 104, or Permission of Instructor.

ENG 209 Dramatic Literature I (3) A study of the early development of dramatic literature and its social relationships. First semester covers major contributions from Aeschylus to Ibsen. Prerequisites: ENG 103, ENG 104.

ENG 210 Dramatic Literature II (3) A study of modern drama from Ibsen to the present. Either semester may be taken independently. Prerequisites: ENG 103, ENG 104.

ENG 211 Intermediate Composition (3) This course explores the origins and development of the essay form in an academic context through the study of various historical and contemporary essays and asks students to apply this knowledge and experience to their own writing. Students will practice reading and writing different kinds of essays, explore the limits of the essay form, and practice and develop research skills. Additionally, students will become familiar with composing and revising techniques through a series of writing workshops. Students have the opportunity to leave the class as better and more versatile writers. Prerequisite: ENG 104.

ENG 213 Children’s Literature (3) Examines literature for children from the preschool level through the middle school level. Topics covered include history and development, research skills, criticism, major authors, and major forms: poetry, picture books, fables, myths, legends, sacred writings, epics and romances, folktales (fairy tales), fiction, and non-fiction. Emphasis is on the teaching of the knowledge and critical skills needed to locate, comprehend, analyze, evaluate, and present the literature. Prerequisites: ENG 103, ENG 104.

ENG 215 Mythology (3) The first concern of the course is the survey of Greek and Roman mythologies: their origin, development, interpretation, and use by both classical and modern writers. In addition, some attention is given to Norse and Celtic mythologies, their relationships to classical mythology and use in British literature. Prerequisites: ENG 103, ENG 104.

ENG 216 Celtic Culture: An Introduction (3) Celtic culture interacts with English tradition at many levels. This course introduces the student to that culture (language, literature, archaeology, art, music) of both the ancient and modern Celtic-speaking lands: ancient Britain and Gaul, modern Ireland, Scotland, Wales, Brittany, Cornwall and the Isle of Man. Special attention is given to extensive medieval literary texts, the Tain Bo Cualnge of Ireland and Mabinogi of Wales. Course work includes directed, individual study projects. Prerequisites: ENG 103, ENG 104.

ENG 217 Science Fiction (3) A chronological examination of science fiction from early 19th Century to the present, with brief references to classical precursors. The themes of science fiction will be explored through various literary genres. Prerequisites: ENG 103, ENG 104.
ENG 219 Acting I: Dramatic Literature in Performance (3) An introductory course in the theory and technique of acting. Each student will participate in various training techniques, including pantomime, acting exercises, improvisation, analysis and interpretation of roles, freeing the imagination, developing concentration, voice production, body movement, scene and character study. Each student will rehearse and perform in scenes consisting of one, two or more characters. Writing character analyses and critiques will also be taught. Prerequisites: ENG 103, ENG 104.

ENG 221 English Literature I (3) A critical and historical survey of English literature from Beowulf to the Romantic Age. Although the literature is presented historically, the central emphasis of the course is on the works themselves. Prerequisites: ENG 103 and ENG 104.

ENG 222 English Literature II (3) A critical and historical survey of English literature from the Romantic Age to the present. Either semester may be taken independently. Prerequisites: ENG 103 and ENG 104.

ENG 223 American Literature I (3) A critical study of major American writers of the 19th Century. The literary works are viewed in their relationship to the cultural movements and intellectual history of American civilization. Prerequisites: ENG 103 and ENG 104.

ENG 224 American Literature II (3) A study of major American writers of the 20th Century. The literary works are viewed in their relationship to the cultural movements and intellectual history of American civilization. Prerequisites: ENG 103 and ENG 104.

ENG 225 Literature of the Black American I (3) A reading, writing, and discussion course which studies literature written by Black American authors. Students read poetry, novels, short stories, and plays in order to develop their critical appreciation of literature, as well as understand the unique condition of Black people in America. The first semester surveys literature written by Black authors from the slave poets (1750s) to the modern renaissance of Afro-American literature (1950s). Prerequisites: ENG 103 and ENG 104.

ENG 226 Literature of the Black American II (3) A reading, writing, and discussion course which studies works by modern Black American authors of the 1960's to the present. Though the main focus of the course is on understanding literature in general, the themes of the works emphasize the special condition of Black people in America. Either semester may be taken independently. Prerequisites: ENG 103 and ENG 104.

ENG 227 Writing for Emerging Technologies (3) Fast-paced and widespread developments in technology have changed the way people distribute, access, and understand information. With the Internet serving both as a medium for text and a delivery system for other kinds of digital content, competitive employees in the marketplace must be able to provide clear and effective pieces of Web-based communication and other kinds of documents. This course will discuss the issues surrounding the new technology. Topics covered in the course include First Amendment law and the Internet, “repurposing” stories across platforms, and clear writing techniques. This course is offered online only. Prerequisite: ENG 104.

ENG 228 The Novel I (3) A study in chronological sequence of selected works of the chief European and English novelists of the 17th and 18th centuries, with emphasis on the evolution of the novel as a form. Students will read the works of individual authors and acquaint themselves with the social and political changes of the relevant period. Prerequisites: ENG 103 and ENG 104.

ENG 229 The Novel II (3) A study of major European and English novelists of the 19th and 20th centuries. Emphasis is on the evolution of the novel as an art form and the relationship of the novel to its social, ideological, and historical setting. Either semester may be taken independently. Prerequisites: ENG 103 and ENG 104.

ENG 230 Women's Literature (3) A reading, discussion, and writing course that covers several time periods and genres to focus on the unique problems and accomplishments of women writers. Analyses of literary works will focus on gender and the cultural climate in which the studied writers worked. Prerequisites: ENG 103, ENG 104.

ENG 231 The Bible As Literature (3) This course is an introduction to the Hebrew Bible (Old Testament) and Christian Bible (New Testament) as literary texts. It will include an examination of literary forms and genres in the Bible, the influence of non-biblical literary sources and analogues, the relationship between history and the Bible, the settings and cultures in which biblical events took place, the process by which the Bible was written and edited, and the influence of the Bible on Western literature. Prerequisites: ENG 103 and 104.

ENG 233 Shakespeare I (3) Concentrates on Shakespeare's early development as a dramatic poet. The first semester will be concerned with the evolving poetic techniques of "apprentice" plays. Sonnets will be included. Also, those dramatic techniques Shakespeare begins to master, whether in tragedies, comedies, histories, or problem plays, will be studied. Shakespeare's themes and his ever-maturing expression of them will form the major aspect of the course. Prerequisites: ENG 103 and ENG 104.

ENG 236 Poetics of the Film-The Talkies (3) A study of the period of the "talkies" as a contemporary art form, concentrating on its uniqueness as well as its relationship to existing literary genres. Either semester may be taken independently. Prerequisites: ENG 103, ENG 104.

ENG 239 American Folklore (3) This course investigates types of folklore found in the United States, including aspects such as definition,
classification, origin, variation, and function in contemporary culture. It explores how traditions (oral, customary, and material folklore) develop within any group of people who share a common interest, experience or background, whether it be race, ethnicity, region, occupation, class, family, age, gender, sexual orientation, (dis)ability, special interest, etc. Through readings, films, and discussion focused on examples of diverse groups, students will learn how the lore of a group both expresses and shapes the experience, concerns, and values of the group. Students will collect, classify, analyze, and share the traditions of their own groups as well. Learning to recognize the dynamics of folklore within their own groups, students will gain the skills necessary to understand and respect the traditions of groups other than their own. Prerequisites: ENG 103 and ENG 104.

ENG 241 American Autobiography As Literature (3) A survey of American autobiographies during the nation's 200 years. The class will examine the cultural issues raised by each autobiographer's quest for identity, and investigate the ways autobiographers shape their lives in words. Prerequisites: ENG 103 and ENG 104.

ENG 245 New Immigrant Literature (3) This course examines literature reflecting the American experience of immigrants and expressing their search for roots and cultural identity, both in the U.S. and in journeys back to their homelands. The class will explore cultural issues raised in fiction, poetry, drama, and memoirs of writers from a number of countries. Discussion and writing assignments will focus on both analyzing the literature and on examining the students' experiences. Prerequisites: ENG 103 and ENG 104.

ENG 250 Voices of Diversity (3) Studies of the pride and prejudice encountered by minority groups in American culture, as expressed in literature and film. At least three of the following "voices", their songs and their outcries, will be heard each semester: the gay and lesbian voice; the Asian-American voice; the Hispanic voice; the Jewish voice; the new immigrant voice; the Native American voice; the voices of the homeless, the drugged, the disenfranchised, and other minority voices. Prerequisites: ENG 103 and ENG 104.

ENG 251 Writing for the Media (3) Elements of writing news stories: style and structure, news sources, types of stories. Discussion and criticism of various kinds of writing for the media, with emphasis on newspapers; consideration of publicity writing. It is recommended that students take ENG/JRN 121 first. Prerequisites: ENG 103 and ENG 104, and ability to type.

ENG 252 The New Non-Fiction and Popular Writing (3) A survey of contemporary attempts to use the techniques of fiction writing in works of non-fiction, and an examination of some outstanding examples of journalistic feature writing, magazine writing, and criticism. Students will have the choice of writing critical reviews or doing non-fiction and related writing. Includes study of one relevant documentary motion picture and one full-length non-fiction work. Prerequisites: ENG 103 and ENG 104.

ENG 259 Report and Technical Writing (3) A course that provides training in the preparation of professional and technical written reports. Attention is paid to the development of the student's ability to design a coherent report, to organize ideas, and to understand and use specific forms, stylistic conventions, and standard language. Prerequisites: ENG 103 and ENG 104.

ENG 270 American Nature Writing (3) American Nature Writing examines themes in nature writing in fiction, non-fiction, poetry, drama, and film. The approach is essentially chronological with studies that focus primarily on nineteenth and twentieth century American writing, including regional investigation of the Adirondack and Catskill areas in New York state. The course will target ecology-related issues. Prerequisites: ENG 103 and ENG 104.

ENG 276 The American West: A Film Study (3) Can be taken either for English or History credit. Studies the settlement of the American West as it has been reflected in popular literature and films, focusing on the distinction between the actual frontier experience and the way that experience has been presented to us in our entertainment. Special emphasis on the Plains Indian, the mountain men, and the cowboys. Prerequisites: ENG 103, ENG 104.

ENG 282 Introduction to Critical Theory (3) The goal of this course is to introduce students to several schools of critical theory widely used in literary analysis, including deconstruction, post-colonialism, feminism, Marxism, semiotics, and psychoanalysis. By the end of this course, students will be familiar with the major arguments and questions of the schools studied. This coverage will include where ideas intersect across schools, key debates at the heart of critical analysis, and practical applications. Most usefully, students will complete the course by performing analytical tasks in at least two critical schools. Prerequisites: ENG 103 and ENG 104.

English as a Second Language

FOR MORE INFORMATION, CONTACT THE ENGLISH DEPARTMENT IN MAWHINNEY HALL, ROOM M310, (315) 498-2313/2266.

ESL 091 Academic Listening (3EQ) Students will receive instruction and intensive practice in listening to authentic academic materials derived from a number of subject areas. The focus will be on improving comprehension of lecture material, expanding vocabulary, and taking effective notes in simulated classroom situations. Prerequisite: LOEP Placement Test. For ESOL students only.
Environmental Technology

ESL 093 Academic Reading (3EQ) This course is designed to help speakers of other languages learn to navigate college-level English language textbooks. Students will be introduced to strategies to help them identify main and sub-points in a text, how to use a text to test-taking purposes, and how to read charts and graphs. Special attention will be paid to pronunciation and comprehension of vocabulary. Materials used in the class will be drawn from across disciplines. Prerequisite: LOEP Placement Test. For ESOL students only.

ESL 115 English as a Second Language II (3) Designed for non-native speakers of English. Emphasis is on building verbal English skills and in using standard English as a written medium. Focus is on developing sentences and paragraphs that are organized, grammatical, and fluent. This course does not satisfy Freshman English Requirements. For ESL students only.

ESL 116 Composition for International Students (3) A course in short composition for native speakers of other languages, with emphasis on individualized instruction, paragraph development, and organization, intensive practice in the proofreading skills required of English grammar, and attendant English vocabulary development. Prerequisite: ESL 115 or placement test.

ENVS 101 Introduction to Environmental Technology (4) This course provides an overview of the environmental science field and also serves as the introductory course for the Environmental Technology program. The course applies the chemical, geological and biological sciences to environmental issues, and relates these issues to various possible career paths. Topics covered in the course include: governmental processes; hazardous materials, pollution and related health effects; basic ecology; hazardous and non-hazardous waste disposal; biofuels and alternative energy technologies. In addition, the laboratory portion of the course will provide hands-on experience with work associated with the environmental industry. Three hours lecture and three hours laboratory per week.

ENVS 103 Introduction to GIS (3) This course introduces fundamental concepts of Geographic Information Systems and the major functionality contained within the ArcGIS software system. In course exercises, students follow the GIS analytical process and work with a variety of software tools to solve realistic mapping problems. This course emphasizes practical GIS and GPS (Geographic Positioning System) skills. ArcGIS is now used in fields as diverse as emergency management, law enforcement, business, engineering, etc. ENV 103 is a required course for the Environmental Technology AAS degree program.

ENVS 104 Applied GIS (3) This course applies fundamental concepts of Geographic Information Systems and the major functionality contained within the ArcGIS Desktop software system, as well as its extensions, Spatial Analyst and 3D Analyst, building on the concepts covered in ENV 103. In course exercises, students follow the GIS analytical process and work with a variety of tools to solve realistic environmental problems, eventually presenting the result of an independent project in a professional grade presentation. This course emphasizes practical GIS and GPS (Geographic Positioning System) skills. ENV 104 is an elective course for the Environmental Technology AAS degree program. Prerequisite: ENV 103.

ENVS 110 Field Experience in Environmental Technology - Geoscience (1) A one credit field course designed for those students contemplating a career in Environmental Technology. The class will visit active, unrestricted sites currently undergoing remediation for soil and/or water contamination. Sampling protocols and proper field notetaking will be practiced. Two classroom sessions and two all day field trips during the fall semester.

ENVS 165 Hazardous Waste Operations and Emergency Response (2) This course provides a comprehensive overview, covering all facets of hazardous waste management and emergency response. Topics include practical exercises and training, which may be applied to business, industry, construction and institutions, including Federal and State rules and regulations, handling procedures and proper operation of a designated waste facility, storage, labeling, manifesting, shipment, employee training, proper use of safety equipment, emergency response procedures (spills response and clean up), cost-effective waste reduction, and environmental reporting procedures. This course is offered as a one week 40-hour course over the winter intersession and will provide 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) certification as specified in OSHA 29CFR 1910.120.

ENVS 201 Internship in Environmental Technology - Geoscience (2) This course is designed for students in their last semester of the ETG AAS degree program, enabling them to gain real world experience with a private consulting firm or government agency. Students will spend a minimum of 40 hours working with a qualifying business or agency and attend two three-hour seminars.

Exercise Science

EXR 180 Introduction to Physical Education, Sport and Kinesiology (3) This course is an overview of the history and foundations of physical education, sport and kinesiology. The various dimensions of these fields, including motor behav-
ior, biomechanics, exercise physiology, sport sociology, health, fitness, sport psychology, teaching and coaching, are among the topics introduced. Students will develop a philosophy of the aims and objectives of physical education as a profession while beginning the process of personal career exploration and planning.

EXR 200 Fundamentals of Exercise Science (3)
This course is an introduction to the nature, scope, and scientific basis of exercise and sport science. The course is aimed at developing an understanding of the physiological adaptations to acute and long term physical training. An understanding of these adaptations is crucial for the physical educator, athletic trainer, coach, fitness expert, or exercise physiologist. Emphasis is placed on bioenergetics as well as circulatory, respiratory and neuromuscular responses during rest, steady state and exhaustive physical activity. An orientation to professional activities, opportunities, and professional competencies in the field will also be addressed. Prerequisite: BIO 172

Fire Protection Technology

FOR MORE INFORMATION, CONTACT THE PUBLIC SAFETY TRAINING CENTER IN J. STANLEY COYNE HALL, ROOM JSC100, (315) 498-6046.

FPT 111 Firefighting Standards I (3) This course will introduce the student to basic firefighting techniques and equipment. The course will follow the National Fire Protection Association 1001 Level I Standard. The student will be required to successfully complete both written and practical national accreditation exams.

FPT 112 Firefighting Standards II (3) This course will introduce the student to advanced firefighting techniques and equipment. The course will follow the National Fire Protection Association 1001 Level II Standards. The student will be required to successfully complete both the written and practical national accreditation exams.

FPT 121 Fire Service Supervisor (3) This course will follow the guidelines of the National Fire Protection Association 1021 Levels I and II Fire Officer Training and Professional Qualifications. Supervision, motivation, leadership, discipline, communication and problem solving will be studied individually and in group activity. Prerequisite: Permission of Instructor.

FPT 141 Fire Service Instructor (3) This course will focus on the information and skills necessary for fire service instructors to meet the requirements of NFPA 1041 Levels I and II. Beginning with analysis of the challenges, safety issues and legal considerations fire instructors will face, students will consider dimensions of the learning process as well as strategies and approaches for planning, delivering, managing and evaluating fire service training.

FPT 150 Introduction to Fire Protection (3) A survey course dealing with the broad field of fire suppression. Included are statistics of fire loss, agencies involved in fire protection, basic organization and functions of a fire department, private fire protection, fire prevention methods, and a review of current and future fire protection problems.


FPT 152 Fire Fighting Tactics and Strategy (3) Deals with the effective utilization of manpower, equipment, and apparatus. Emphasis will be placed on fire-planning, fire ground organization, large fire tactical problems, command functions, utilization of staff personnel, communications procedures, water supply problems, and strategic considerations of community protection during large fires or major emergencies. Prerequisite: FPT 150.

FPT 153 Legal Aspects of Fire Protection (3) A study of the police power; considerations of liability, negligence, rights and responsibilities of fire department members while performing their duties. The law of arson and its specific application, an examination of the various court systems. A study of the See v. Seattle decision and its effect on fire prevention activities.

FPT 155 Hazardous Materials (3) A study of the chemical and physical characteristics of hazardous materials such as explosives, flammable and combustible liquids, oxidizing and corrosive materials, compressed gases and radioactive materials. Emphasis will be placed on storage, handling, and fire control procedures.

FPT 156 Fire Hazards and Their Control (3) A study of common and special fire hazards of both the causative and contributive types. Identification and evaluation of degree of severity are stressed, together with appropriate means of control of hazards. Relevant local and national codes and standards are emphasized.

FPT 157 Fire Hydraulics (3) A course in incompressible fluids covering principles of fluid statics and dynamics, pipe friction, flow measurements, orifice calculations, pumps and other hydraulic devices. Applications are related to fire protection systems and equipment. Public water system design with reference to American Insurance Association standards will be covered.

FPT 158 General Chemistry for Fire Science (3) A study of general chemistry from the viewpoint of hazardous material. Aspects of combustion are studied in detail. A prerequisite for advanced Fire Science course dealing with hazardous materials. No laboratory. Evenings only.
FPT 159 General Chemistry for Fire Science (3)
A study of general chemistry from the viewpoint of hazardous materials. Aspects of combustion are studied in detail. A prerequisite for advanced Fire Science course dealing with hazardous materials. No laboratory. Evenings Only.

FPT 160 General Physics for Fire Science (3)
A one-semester study of selected topics in general physics for students enrolled in the Fire Science curriculum. Includes topics in mechanics, fluid mechanics, electricity, heat. No laboratory. Three class hours.

FPT 162 Introduction to Safety (3)
A survey course covering a wide range of safety topics applicable to business, industry, construction and institutions. Included are the history and objectives of the safety profession; specific activities such as hazard evaluation, accident analysis and record-keeping; and specialized topics such as material handling, workers compensation, fire protection and industrial hygiene. The course will enhance the knowledge of those with limited experience in safety while providing a basic understanding of the role of the safety profession for those with no experience.

FPT 163 Introduction to Safety Management (3)
Introductory course on the Management of Safety in business for students who have had CRJ/FPT 162 (or direct experience) in safety. It is designed to provide an overview of the basic concepts of Modern Safety Management Systems that are used to develop and maintain an effective safety program. It will aid present and future safety managers in developing a formal safety program. In particular, the following sections are covered: Introduction, Basic Safety Concepts and Methods, Principles of Safety Management, and Special Techniques, Problems and Auxiliary Functions. The students will prepare class assignments to reinforce their understanding of the concepts presented and gain actual experience in developing a formal Safety and Health program.

FPT 164 Introduction to Industrial Hygiene (3)
Covers the fundamentals of industrial hygiene and occupational safety. Provides basic information on the recognition, evaluation and control of hazardous chemicals and agents in the work place. Topics cover the measurement of hazardous materials in the work environment, toxicology, responses to toxic agents, ventilation, noise, government regulations, medical surveillance, and protection equipment.

FPT 250 Fire Department Administration (3)
A study of the administrative aspects of Fire Department operation. Included for study are basic administrative and management procedures, personnel administration, budget keeping, record systems, operational study techniques, public relations, line and staff functions, supervisory responsibilities, and related subjects. Emphasis will be placed on current administrative problems, and methods of developing solutions to these problems. Prerequisite: FPT 150.

FPT 251 Fire Protection Systems (3)
A study of fire detection and extinguishing devices and systems of both automatic and manual types. Included for study are fire extinguishing agents, portable extinguishing equipment, fixed systems of various types, and detection and signaling systems. Stress will be placed on the operating characteristics, advantages and limitations, and methods of inspection and testing.

FPT 252 Fire Investigation (3)
This course deals with the proper methods of investigating fires, of both the accidental and incendiary types. The fundamentals of arson investigation are covered including handling of evidence, liaison with the police services in criminal fires, and interrogation of witnesses. Also included are use of photography and scientific aids to investigation. Prerequisite: FPT 150 or Permission of Instructor.

FPT 253 Fire Prevention and Inspection (3)
This course deals with the establishment of an effective community fire prevention program. Included for study are the organization of a fire prevention bureau, necessary codes and ordinances, establishment of an effective inspection program, record keeping procedures, handling of orders and complaints, and development of an adequate public education and information program.

Food Service Administration

FOR MORE INFORMATION, CONTACT THE BUSINESS ADMINISTRATION DEPARTMENT IN THE WHITNEY APPLIED TECHNOLOGY CENTER, ROOM W224, (315) 498-2435.

FSA 100 Food Service Sanitation (2)
Designed and approved by the National Restaurant Association Education Foundation so that students may become certified in Sanitation and Safety. The course is an intensive study of proper sanitation and safety through purchasing, storage, preparation, service of food, and hiring of personnel. Must be taken prior to/with FSA 103.

FSA 102 Basic Nutrition (3)
Basic principles of nutrition in regard to energy, protein, mineral, and vitamin requirements. Study of adequate diets and dietetics in relation to general health and diseases and the food requirements for all ages from prenatal to adult years. Optimum diets and diets of various national, social, and economic groups are studied.

FSA 103 Basic Food Preparation (4)
Students are introduced to the fundamentals of basic food production for hotels, restaurants, and institutions. Included is a history of the culinary arts; exposure to sanitation, hygiene and safety standards; operation of equipment; and cooking procedures. Demonstration of the preparation of foods will be provided by the instructor followed by student preparation in such categories as hot foods, cold foods, and baking. Prerequisite or co-requisite: FSA 100.

FSA 104 Quantity Foods: Preparation, Production and Service (4)
Designed to elaborate on the techniques of food preparation and service. Emphasis will be placed on practical applica-
tion of cooking techniques and dining room service for various types of food service facilities. Students will function in all positions of employment, gaining skills in such areas as quantity food production, menu development, waiter/waitress service, food estimation, intermediate management responsibilities, inventory principles, and food production systems analysis. Prerequisite: FSA 100, FSA 103 or Permission of Instructor.

FSA 107 Cooking Basics (3) This course is designed to provide content information and skill practice in the basic fundamentals of cooking and baking. Areas of cookery to be covered are: baking: cookies, desserts and bread products; hot food preparation: vegetables, soups, stews, sauté, stir fry, pasta and grains. Nutritional food selection, menu planning and cultural influences on the American diet will also be emphasized. A lab fee is required. This course is not open to students matriculated in the Hospitality Management or Professional Cooking Curricula.

FSA 112 Creative and Functional Culinary Arts (1) This culinary arts course will cover the use of key main ingredients in the preparation of appetizers, soups, salads and entrees. Mise en place, production issues, equipment selection and use, taste, color and selection of appropriate ingredients for each student to properly present his/her culinary creation will be emphasized. A materials fee will be charged. Prerequisite: FSA 103, or advanced-level culinary skills and Permission of Instructor.

FSA 114 Patisserie I (1) This culinary arts course teaches concepts, skills and techniques for preparing dessert items. Topics to be covered include: individual pastries and desserts, decorative chocolate and sugar, pate choux and finishing of cakes. A materials fee will be charged. Prerequisite: FSA 103, or advanced-level culinary skills and Permission of Instructor.

FSA 116 Artisanal Bread Baking (1) This course is an advanced-level baking course building on skills acquired in FSA 103, or equivalent skills. Students will learn to combine artisanal bread making science and theory with hands-on practice to develop skill and technique in the production of various bread products. The course will emphasize fermented breads such as baguettes, brioche and other preferments. Uniform required, general lab fee. Prerequisite: FSA 103 or Permission of Instructor.

FSA 201 Food Service Management (3) A continuation of the study of management functions as they relate to the food service industry. This second-level course covers the principles of personnel management and product merchandising necessary for the successful operation of food service facilities.

FSA 202 Food Service Cost Controls (3) A detailed study of how to set up and maintain cost control systems. The course focuses on important areas such as how to gather and use cost control information, profit planning, and the economics of the food service industry. Prerequisites: BUS 102, BUS 105.

FSA 204 Purchasing, Storage and Handling (3) A study of the fundamental principles and practices of purchasing, storing, and handling food items and supplies needed in restaurants, hotels, and institutions. The student will acquire working knowledge of such concepts as standards, grades, specifications, methods of ordering, requisitions, and the use of production records, proper receiving procedures, storage methods, issuing, and proper temperatures and holding items.

FSA 206 Diet Therapy (3) A continuation of the study of nutrition. The student will develop an understanding of the factors which make dietary modifications necessary for the treatment of disease; the principles of calculation, preparation, and service of modified diet; and the role of the diettian in relation to total dietary care of an individual. Prerequisite: FSA 102.

FSA 207 Meal Planning and Equipment Selection (3) Designed to provide the student with the knowledge and skills necessary to properly plan a menu and the physical food service layout to produce and serve that menu. Topics to be covered will relate to traditional, specialty and “trendy” menu types along with the proper production and service layout. The student will create a business plan for establishing a food service operation.

FSA 210 Catering and Advanced Culinary Arts (4) This course is designed for students who have successfully completed a basic food preparation principle course. The course will provide the fundamentals for operating and working in a catering organization. Through the operation of an on-campus curriculum-based catering organization, the student will rotate through all positions within a catering business. Students will also develop skills in special areas of food preparation such as hors d’oeuvres, baking and pastry. American and International cuisines. Prerequisites: FSA 100 and 103.

French

FOR MORE INFORMATION, CONTACT THE MODERN LANGUAGES DEPARTMENT IN MAWHINNEY HALL, ROOM M308, (315) 498-2305.

FRE 101 Elementary French I (3) This learner-centered course is designed for students with little or no previous knowledge of French. Students acquire basic grammatical and lexical skills that will enable them to communicate in routine social or professional situations within an authentic cultural context. Upon successful completion of FRE 101, students may enroll in FRE 102. This course also fulfills the Global Awareness requirement at Onondaga.

FRE 102 Elementary French II (3) This course is a sequel to Elementary French I. It builds upon the basic grammatical, linguistic, communicative and cultural concepts learned in FRE 101. Upon successful completion of FRE 102, students may enroll in FRE 201. This course also fulfills the Global Awareness requirement at Onondaga. Prerequisite: FRE 101, or two to three years of high school French, or Permission of Instructor.
FRE 201 Intermediate French I (3) This dynamic course draws upon previously acquired knowledge, while introducing students to more complex grammatical and lexical structures to further develop communicative proficiency and cultural knowledge. The course is conducted mostly in French. Upon successful completion of FRE 201, students may enroll in FRE 202. This course also fulfills the Global Awareness requirement at Onondaga. Prerequisite: FRE 102, or four years of high school French, or Permission of Instructor.

FRE 202 Intermediate French II (3) This course is a sequel to Intermediate French I. It expands upon complex grammatical and lexical structures. It is conducted entirely in French and provides a solid foundation for advanced study. Upon completion of FRE 202, students may enroll in any intermediate-high level course. Students who successfully complete the FRE 202 level have fulfilled their language requirement for the A.A. in Humanities and Teacher Prep programs. The three additional credits may be taken either as a language course or as a general elective. This course also fulfills the Global Awareness requirement at Onondaga. Prerequisite: FRE 201, or five years of high school French, or Permission of Instructor.

FRE 205 French Conversation, Composition and Reading I (3) Intensive work in conversation and composition based on reading and analysis of representative literary masterpieces. Oral and written reports in French. Class conducted in French. Solid preparation in grammar recommended.

FRE 206 French Conversation, Composition and Reading II (3) Intensive work in conversation and composition based on reading and analysis of representative literary masterpieces. Oral and written reports in French. Class conducted in French. Solid preparation in grammar recommended.

General Studies

GEN 152 Human Adjustment (3) A learning experience through which students may derive a better understanding of themselves, their relationships to others, and how they adjust to their environment. Students learn about the process of adjustment and are introduced to concepts and skills that promote adjustment. Current theories in psychology provide the framework for discussion of topics that include self-concept, identity, personality, aging, sex role, stress and health, and maladjustment.

GEN 154 Comparative Vocational Planning (3) Designed to introduce students to methods of occupational planning and to expose them to available career choices. Integrated concepts include an evaluation of individual capabilities, preferences and goals.

Geography

GEG 101 Introduction to Geography (3) The purpose of this course is to provide an introduction to the basic concepts and methodology of world regional geography. Because geography incorporates aspects from multiple disciplines, we will examine geographic regions and introduce relative location, population characteristics, cultural features, physical environment, resources, major cities, economic development and historical perspectives. Furthermore, through individual projects, each student will introduce him or herself to world affairs and how events in one place can influence events in distant locations. Finally, basic geographic concepts will be introduced to help explain the variable character of the humanized earth.

GEG 203 Economic Geography (3) Economic Geography investigates how the global economic system works within a spatial framework. It focuses on the production, distribution and consumption of wealth in society and why wealth is not evenly distributed globally, regionally and locally. Topics covered include the shift from Command Economy to Market Economy in the former communist bloc; the American era of Fordism and the Dollar; the shift to Flexible Specialization/Production and its impact on laborers today; and the new space-economy dominated by strategic alliances, sourcing, free trade zones and trading blocs. A global perspective will be used to discuss the topics in the course.

Geology

GEO 103 Physical Geology (4) An introduction to the basic principles of the earth sciences - geology, geochemistry, and geophysics - and their relation to materials and processes acting upon and within the Earth's crust. Consideration is given to rocks and minerals, structures and deformation of the Earth's crust, earthquakes, and volcanism, and the work of the wind, running water, ground water, the oceans and glaciers upon the Earth's surface. This course, together with GEO 104, satisfies the sequential laboratory science requirement of the Math-Science curriculum and also satisfies the requirements of those curricula demanding science or laboratory science courses. Three one-hour lectures or equivalent and one three-hour laboratory per week. No prerequisite.

GEO 104 Historical Geology (4) A detailed study of the Earth's geologic history relative to the development of continents and life forms; includes study of biologic evolution and geotectonics. Geomorphic and stratigraphic principles are utilized in the interpretation of geologic history. Laboratory includes
work with fossils and geologic maps. Field trips emphasize regional geology. It is intended that this course follow GEO 103, and taken in this way satisfies the sequential laboratory science requirement of the Math-Science curriculum. It also satisfies the requirements of those curricula demanding science or laboratory science courses. Three one-hour lectures or equivalent and one three-hour laboratory per week. Prerequisite: GEO 103 or 105 or 106, or Permission of Instructor.

GEO 105 Oceanography (3) An introductory survey of oceanography relating the physical, chemical, geological, biological, meteorological, and engineering aspects of the field. This course satisfies the science elective requirement of the Math-Science curriculum and also satisfies the science requirement of those curricula which require science. Three class hours or equivalent per week. No prerequisite.

GEO 105L Oceanography Laboratory (1) Includes investigation of ocean waters in terms of physical and chemical properties, and the interactions of the water on air, sediments, coastal areas, and life forms. This course is intended for those who wish to deepen their understanding of oceanography and/or have a laboratory science requirement to satisfy. One three-hour session per week. Prerequisite/ co-requisite: GEO 105.

GEO 106 Environmental Geology (3) Introduction to the everyday geological problems of our world community. Topics which are covered include population growth, natural resources, water pollution, waste disposal, energy sources, and environmental health hazards. Selected other topics of concern are earthquakes, landslides, and flood dangers. The course satisfies the science elective requirement of the Math-Science curriculum and also satisfies the science requirement of those curricula which require science. Three class hours or equivalent per week. No prerequisite.

GEO 106L Environmental Geology Lab (1) Application of geological tools to the solution of environmental problems. Use of maps and aerial photographic interpretation and other analytical methods in seeking data on environment. Field trips include trips to local environmental problem and industrial sites. This course is intended for those who wish to deepen their understanding of environmental geology and/or have a laboratory science requirement to satisfy. One three-hour laboratory per week. Prerequisite or co-requisite: GEO 106.

GEO 203 Introduction to Forensic Geology (4) Forensic Geology is designed for math/science majors, criminal justice majors and non-science majors who have an interest in forensic science and the academic and/or professional experience needed to handle the subject matter. The purpose of this course is to introduce students to the use of different geologic materials and techniques that can be used to solve crimes and disputes. Details from actual criminal cases and disputes will be used as examples in this course. This course includes a variety of geologic topics including rocks, minerals, other geologic materials, geologic and topographic maps, fossils, air particles and pollutants, and soils. Laboratory and classroom experience will include the analysis of different techniques employed in forensic geology. These techniques include fluorescence, stereoscopic analysis, optical microscopy, and various chemical analyses. Prerequisite: GEO 103 or 106, or Permission of Instructor.

GEO 205 Hydrology (4) This course introduces students to fundamental concepts and methods of analysis pertaining to the flow of surface/subsurface, water resources, water quality and contamination. Laboratory and classroom experience will include: the physics of water; descriptions and mathematics of water's movement in the surface water, vadose and groundwater settings; basic elements of soil mechanics and soil description; exploratory drilling and well installation; conducting and analyzing a pump test; surface water flow analysis and measurement; and analysis techniques of water chemistry. Several laboratories involve field work in and around the Onondaga campus measuring stream flow, installing and developing wells, testing wells, and collecting water samples. This course prepares students for the environmental field (governmental and consulting) and graduate programs in the environmental and hydrologic sciences. Three hours lecture and three hours laboratory per week. Prerequisite: MAT 143 or 151.

GEO 290 Geology of the Bahamas (3) A two-week, three credit course of fieldwork in biolog and geology in a tropical marine setting. Environments, present and past, to be studied by snorkeling and walking include: beach, intertidal, coral reef, and associated shallow water habitats. Studies include evening lectures and independent research projects. Location: The Gerace Research Center, San Salvador Island, Bahamas. San Salvador is at the eastern end of a chain of 700 islands and cays that form the Commonwealth of the Bahamas. Requirements: The program is open to undergraduate and graduate students. No prior coursework is required to participate; however, some background in general biology, geology, or oceanography is helpful.

German

FOR MORE INFORMATION, CONTACT THE MODERN LANGUAGES DEPARTMENT IN MAWHINNEY HALL, ROOM M308, (315) 498-2305.

GER 101 Elementary German I (3) This learner-centered course is designed for students with little or no previous knowledge of German. Students acquire basic grammatical and lexical skills that will enable them to communicate in routine social or professional situations within an authentic cultural context. Upon successful completion of GER 101, students may enroll in GER 102. This course also fulfills the Global Awareness requirement at Onondaga.
GER 102 Elementary German II (3) This course is a sequel to Elementary German I. It builds upon the basic grammatical, linguistic, communicative and cultural concepts learned in GER 101. Upon successful completion of GER 102, students may enroll in GER 201. This course also fulfills the Global Awareness requirement at Onondaga. Prerequisite: GER 101, or two to three years of high school German, or Permission of Instructor.

GER 201 Intermediate German I (3) This dynamic course draws upon previously acquired knowledge, while introducing students to more complex grammatical and lexical structures to further develop communicative proficiency and cultural knowledge. The course is conducted mostly in German. This course also fulfills the Global Awareness requirement at Onondaga. Prerequisite: GER 102, or four years of high school German, or Permission of Instructor.

Health

HEA 106 Studies in Health and Wellness (1) Wellness is a dynamic process of balancing multiple lifestyle factors to achieve personal heartiness and happiness. The connections between personal choices and health outcomes are emphasized, along with ways to recognize the signs and symptoms of common causes of illness and death in the United States. Students will be introduced to strategies and resources which enable them to make informed decisions about their wellness. Topics discussed include: stress management, diet, substance use, relationships, sex and sexuality, exercise, and chronic and communicable diseases. (Effective beginning Spring 2010.)

HEA 206 Studies in Health and Wellness (1) This course is a study of the six dimensions of wellness. The connection between lifestyle choices and health outcome in relation to the wellness continuum is emphasized. Health behaviors addressed include: stress management, diet, substance use, sex and sexuality, exercise, hygiene, and other health practices associated with disease. Strategies and resources which enable students to make informed choices about their behaviors will be explored. There is no prerequisite to this course. (Effective through winter 2010 only.)

HEA 207 Personal Health (3) An in-depth course for those students seeking greater knowledge in health. Covered are a broad range of topics similar to those discussed in PEH 206 and PEH 210, but in greater detail.

HEA 208 Human Sexuality (3) This course examines the developmental and social aspects of human sexuality as developed within the individual and within relationships. Topics include sexual anatomy and physiology, reproduction, sexual development, childbirth, sexual diversity, sexually transmitted diseases, various sexual problems and dysfunction and an exploration of community resources.

HEA 209 Drugs and Wellness (3) This course is designed to introduce students to the physiological, psychological, and sociological effects of drug use, abuse, and dependency on wellness. Topics covered enable students to make informed decisions about drug use including: over-the-counter drugs, prescription drugs, herbal remedies, dietary supplements, caffeine, tobacco, alcohol and illicit drugs. In addition, community resources that assist individuals with drug dependence will be identified to assist individuals with wellness. There are no prerequisites for this course.

HEA 212 Health and Safety Awareness for Teacher Education (1) This course is designed for those students planning to transfer to a four-year institution to pursue NYS teacher certification or for those in related fields. A brief overview will be given of such topics as: identification and report of suspected child abuse and maltreatment; prevention of child abduction; abuse prevention of alcohol, tobacco and other drugs; instruction in fire and arson prevention and school violence prevention and intervention. Stress reduction and conflict resolution/mediation are also addressed. Additional fees are required for mandated training in Child Abuse Reporting and School Violence Prevention and Intervention (Project S.A.V.E.).

HEA 213 Managing Stress for Health and Well-Being (3) A study of the fundamental theories and applications of the mind-body phenomenon. The interconnectivity of the physical, mental, emotional, and spiritual aspects of the human condition will be discussed. Other topics include stress reaction and its relationship to specific illnesses and diseases and intervention strategies. Relaxation techniques are introduced and practiced.

Health First Aid

HFA 203 Responding to Emergencies (2) This course is designed to develop safety consciousness and train individuals in the skills and emergency procedures necessary to render assistance to others. It stresses the basic steps for handling cardiac emergencies with adults, infants and children, along with the first aid skills necessary for treating soft tissue injuries, bleeding control, and other sudden illnesses. All of these skills are taught under American Red Cross standards leading to certification in CPR, First Aid, and use of the Automated External Defibrillator (AED) device. This course is appropriate for home and working environments, and is not intended for professional rescuers. This course does not meet the Health or Physical Education activity requirement.
HFA 204 Cardiopulmonary Resuscitation (1)
Taught under American Red Cross standards leading to professional-rescuer certification in CPR, this course enables students to provide appropriate initial care for breathing and cardiac emergencies in adults, infants and children. Included in the course: two-rescue CPR, use of a resuscitation mask and bag-valve mask, and special rescue situations. The course is intended for public safety personnel, athletic trainers, lifeguards, emergency response teams, and health care professionals. (This will not fulfill the Physical Education Health requirement.)

HFA 214 CPR Recertification (0.5) Taught under American Red Cross guidelines. This course is for public safety personnel, lifeguards, athletic trainers, emergency response team members and health care professionals who need to update and recertify in professional rescuer skills. Prerequisite: Current CPR card issued within one year or Permission of Instructor.

HFA 215 Community CPR and First Aid (1)
Taught under American Red Cross guidelines. This course leads to certification in Community CPR and First Aid and stresses the basic steps to follow in recognizing and caring for breathing and cardiac emergencies in adults, infants and children. Includes first aid skills for soft tissue injuries, bleeding control, splinting and other sudden illnesses. Appropriate for home and working environments. This course is not intended for professional rescuers. There are no prerequisites for this course.

**Health Information Technology**

FOR MORE INFORMATION, CONTACT THE BUSINESS ADMINISTRATION DEPARTMENT IN THE WHITNEY APPLIED TECHNOLOGY CENTER, ROOM W324, (315) 498-2435.

HIT 101 Introduction to Health Information Technology (3) This course introduces the Health Information Technology student to the health care delivery system, including maintenance and acquisition of health data/information. History of the profession and the role of the American Health Information Management Association (AHIMA) will be covered. Health information management includes: numbering and filing methods, storage and retention of health records, design and maintenance of medical forms, quantitative analysis, and indices. In addition, the role of accrediting and regulatory agencies will be reviewed. Three hours lecture and one-hour laboratory. Co-requisite: CJS 100.

HIT 102 Legal Aspects of Health Information (3)
This course is designed to provide the student with an overview of the legal and regulatory requirements for the maintenance, retention, and dissemination of health information and the role of medical documentation in legal proceedings. Major topics include: federal, state and JCAHO regulations; facility bylaws rules and regulations; the federal and state legal system; authorizations and consents, release of information, concepts of liability; civil procedures; and the role of risk management.

HIT 103 Health Information Systems in Non-Hospital Settings (3) This course is designed to familiarize the student with health information systems in non-hospital settings. Specific areas to be covered will include, but are not limited to, ambulatory care, long-term care, home care, hospice, psychiatric care, and public health services. Health information functions, as well as quality assurance, risk management and utilization management, will be covered. Prerequisite: HIT 101; co-requisites: HIT 102, HIT 223.

HIT 110 Coding and Classification Systems I (3) This course is designed to familiarize the student with coding and classification systems used in health information management. Emphasis will be on outpatient coding, classification, and reimbursement systems including CPT, HCPCS, APGs, and RBRVS. Students will become familiar with both manual and automated systems. Prerequisite: HIT 101, BIO 171 or Permission of Instructor.

HIT 120 Medical Terminology (3) This course will provide a detailed study of the meaning of medical terms that relate to medical science and human anatomy. Medical specialties including pathology, radiology, and pharmacology, as well as abbreviations used in the health care field, will be covered. In addition to definitions, pronunciation and spelling will be emphasized.

HIT 121 Medical Transcription I (3) This course is designed to introduce and familiarize the student with the transcription of health care documentation using electronic technology. Topics include careers, equipment and the ethical and legal responsibilities of the medical transcriptionist. Students apply grammar, punctuation, medical terminology and word processing skills to transcribe basic medical documents for various settings. Prerequisite: BUS 153 or equivalent, or placement in ENG 103; co-requisite: HIT 120 or Permission of Instructor.

HIT 201 Health Statistics and Reporting (3)
The course reviews descriptive and vital statistics, reporting requirements, definitions and formulas for computing hospital and public health statistics. It will include the management of health information in relation to data collection, analysis and presentation. Topics will include the collection, analysis and display of data for quality assurance, utilization review, risk management and reimbursement. Prerequisites: HIT 101 and HIT 103 (and MAT 087, if required).

HIT 202 Management of Health Information Service (3) This course introduces the student to management functions (planning, organizing, directing, controlling and personnel supervision) as they relate to health information services. In addition to Health Information Services, the roles and functions of Quality Assurance/Improvement, Risk Management, and Utilization Management will be included. Prerequisite: HIT 201.
HIT 205 Computer Applications in Health Information Management (3) This course is designed to familiarize the student with computer applications used in health care facilities with emphasis on those used in health information management. Students will be instructed on the design, implementation and evaluation of automated systems. Quality controls, security and confidentiality will also be covered. Prerequisite: HIT 210.

HIT 210 Coding and Classification Systems II (4) This course is a continuation of HIT 110. It is designed to familiarize the student with coding and classification systems used in health information management. Emphasis will be on Inpatient coding, classification, and utilizing ICD-9-CM. Reimbursement systems including DRGs, negotiated rates and capitated payments will be discussed. Students will become familiar with both manual and automated systems. Student cost for required texts for this course is approximately $150. Class consists of three hours of lecture and two laboratory hours. Prerequisite: HIT 110 or Permission of Instructor; co-requisite: BIO 221.

HIT 215 Healthcare Reimbursement (3) This course is the study of the principles and practice of insurance and reimbursement processing. It includes the assignment and reporting of codes for diagnoses and procedures/services. The completion of UB-04 and CMS-1500 claims for inpatient, outpatient, emergency department, and physician office encounters will be covered. Inpatient and outpatient cases will be reviewed to identify issues of fraud and abuse. Prospective payment systems and revenue cycle management will be included. Prerequisites: HIT 110, HIT 210.

HIT 221 Medical Transcription II (3) This course is a continuation of Medical Transcription I (HIT 121) and is designed to develop more advanced transcription skills. Medical Transcription II improves a student’s capacity to transcribe medical reports for a broad range of clinical disciplines. Students enhance their understanding of medical and anatomical terminology. The development of medicolegal reports and medical committee minutes are also covered. Prerequisite: HIT 121.

HIT 223 Supervised Professional Practices I (1) This course is designed to give students the opportunity to observe health information departments and systems in non-hospital settings. Students are assigned on a rotating basis to a variety of health related sites, including health regulatory agencies, ambulatory care, long-term care and other non-hospital facilities for a total of 40 hours. Co-requisites: HIT 101, HIT 103.

HIT 225 Supervised Professional Practices II (3) Students in the health information technology program are required to complete a clinical practicum at the technical level. The main purpose of this practicum is to integrate the didactic (lecture) component with the clinical (practice) components. Students will utilize the knowledge they have gained from the classroom lectures and laboratory experiences in the clinical setting. Each student will spend 15 days (120 hrs.) in a health care facility. The student is responsible for the arrangement and costs of transportation to and from the clinical site. Prerequisites: HIT 101, HIT 102, HIT 110, and HIT 223; co-requisite: HIT 210.

HIT 227 Supervised Professional Practices III (3) This course is a continuation of HIT 225 and is designed to give students practical experience in health information management and supervisory issues. Students will utilize the knowledge they have gained from the classroom lectures and laboratory experiences in the clinical setting. Each student will spend 15 days (120 hrs.) in a health care facility. The student is responsible for the arrangement and costs of transportation to and from the clinical site. Prerequisite: HIT 225; co-requisites: HIT 202, HIT 205.

HIT 230 Advanced Seminar in Health Information Technology (1) This course is designed to review and integrate previous HIT courses and clinical experiences. Exploration of career opportunities, preparation of resume, job search and interviewing for positions in health information technology will also be covered. This consists of a three-hour lecture which meets for five weeks. Co-requisite: HIT 227.

History

FOR MORE INFORMATION, CONTACT THE SOCIAL SCIENCES DEPARTMENT IN MAWHINNEY HALL, ROOM M380, (315) 498-2301.

HIS 101 World History I (3) World History I is the first course in a two-course sequence tracing the rise of world civilizations. The course examines social, political, intellectual and economic development of world civilizations from their emergence to 1600 C.E. This course examines the rise of civilizations in Europe, Africa and Asia, the development of world religious traditions, and the growing conflict between world civilizations.

HIS 102 World History II (3) World History II is the second course in a two-course sequence tracing the rise of world civilizations. The course examines the social, political, intellectual and economic development of world civilizations from 1600 C.E. to the present. The course examines the growth of the national state, imperialism, the decline of monarchy and the World conflicts of the 20th century.

HIS 103 History of Western Civilization (3) The first course in a two-course sequence: an historical survey of Western Civilization from its origins to c. 1600. It examines the political, economic, social, cultural, religious, and intellectual developments that shaped the West, including its relationship with other regions of the world. Topics covered include its origins in the ancient Near East, Greece, and Rome; Judaism, Christianity, and Islam; medieval Europe.
and Byzantium; the Renaissance; European colonization; and the Protestant Reformation. Students will analyze primary and secondary sources.

HIS 104 History of Western Civilization (3)
The second in a two-course sequence: an historical survey of Western Civilization from c. 1600 to the present. It examines the political, economic, social, cultural, religious, and intellectual developments that shaped the West, including its relationship with other regions of the world. Topics covered include the Scientific Revolution, early modern state-building, colonialism, the Enlightenment, the French Revolution, the rise of modern political ideologies, imperialism, the World Wars, the Cold War, and terrorism. Students will analyze primary and secondary sources.

HIS 105 Early American History (3) A survey of early American history emphasizing political, social, and intellectual trends. Students are introduced to works of major historians and to various interpretations of American history. The course will cover early American history from its beginnings through the early National period.

HIS 106 American History in the 19th Century (3) A continuation of HIS 105, covering American history from the early National period through the 19th century.

HIS 107 Modern American History (3) America in the twentieth century, covering the major trends and movements in modern American history. A continuation of HIS 105, HIS 106.

HIS 119 Economic Transformation of the United States (3) A one-semester course that analytically relates the economic institutions and forces that have contributed to the development of the American economic structure. The emergence of these institutions will be related to the growth process through an amplification of the national banking system, the ramifications of trade (both domestic and external), the business cycle, the emergence of organized labor, social reform, and public policy. The interrelationship of these institutions will be studied in their historical perspective. Three-hour elective credit for Economics, History, or Social Science (same course as ECO 119). No prerequisite.

HIS 125 American Social History: A Film Study (3) A study of United States social and cultural movements since the late 19th century, with special emphasis on minority groups - Native Americans, African Americans, women, workers, immigrants, dissenters. In addition to lectures and books, the course will rely extensively on the use of media to illustrate the course of American history. No prerequisite.

HIS 207 History of the North American Indian (3)
A survey of American Indian history with emphasis upon pluralistic beginnings, the culture of American Indian groups, Indian-White contacts, the impact of Federal Indian policy; and persistence and change in American Indian culture. No prerequisite, though it would be preferable to have taken HIS 105 and 106.

HIS 208 History of the Iroquois (3) This course will cover the history of the Iroquois peoples. It will describe the historical origins and development of the Iroquois Confederacy, and delve into issues that have had an impact on the confederacy over the years. Current legal problems, such as land claims, gaming, and taxing authority battles will be analyzed and discussed.

HIS 209 History of American Women (3) A chronological and topical study of women as a group and as members of different social classes, from the colonial period to modern America. Women's contributions to American social, cultural, economic, and political life are emphasized, along with their struggle for civil, legal, and political rights.

HIS 210 History of Women and Medicine in America (3) A study of American medical theories and practice from the 18th century to the present. Emphasis is given to changing views of women's sexuality, women as patients, and as medical practitioners within the context of social and cultural history. Prerequisite: HIS 209 strongly recommended, or Permission of Instructor.

HIS 211 Russian History I (3) A survey of Russian history from the earliest times, emphasizing the Byzantine religious and cultural heritage. Students are acquainted with the Kievan Rus, the Moscovite Rus, and eventually with Imperial Russia. Special attention is given to the serf problem and to the revolutionary movement.

HIS 212 Russian History II (3) Begins with the reign of the last Tsar, continues with the revolution, war, communism, and the civil war; the “NEP” period and soviet consolidation; Soviet Union under Stalin; the USSR and the second World War; the Cold War Era.

HIS 213 End of Empire: British Imperialism Since 1900 (3) This course is a study of world history and global issues through an examination of the British Empire in the twentieth century. Students will assess how British power operated and how it controlled its huge far-flung Empire. Independence movements from both the British and indigenous populations' perspectives, and the lasting ramifications of British rule, will be investigated.

HIS 214 The Global History of Sexuality (3) This course is an introduction to the scholarly study of the global history of sexuality. Its main focus is to help students develop an understanding of ancient Greek and Roman societies based on comparisons with African and Indian societies of the Early Modern and Modern periods. Students will reflect on the influence of Western society on non-Western cultures. They will explore the changing ways that individuals, moral authorities, the tribe/state and scientific experts have conceptualized sexuality and gender. Topics covered include: age and rites of passage; childhood and adulthood; marriage; conception, birth, infanticide; the family; love; male and female homosexuality; women and property; and sex and politics.
HIS 221 Mayas and Aztecs: An Introduction to the History of Ancient Mesoamerica (3) This course introduces students to the pre-Columbian civilizations of Mexico and Central America, advanced cultures begun long before the common era and lasting for several thousand years. These ancient and still mysterious peoples will be observed and examined, peoples who constructed vast cities and great pyramids some only recently rediscovered, who developed sophisticated calendars and writing systems still not completely understood, and who created religious and political systems that endure in modified forms to this day.

HIS 222 African American History Through the Civil War Era (3) This course examines chronologically and topically the development of African-Americans from Africa, emphasizing the West African kingdoms, through the Civil War Era. West African culture and social life will be discussed in order to show how that culture was exploited by Europeans in the development of the slave trade. Students will spend several weeks studying the development of the institution of slavery and how slaves psychologically adapted to that lifestyle. The course also emphasizes the development of free black communities in America during this period and the motivations for and efforts of African and non-African Americans to end slavery. The course concludes with a discussion of the reality and myth of Black participation in the Civil War and Reconstruction. Prerequisite: ENG 103.

HIS 223 African American History 1890 to the Present (3) This course examines chronologically and topically the development of African Americans from the post-Civil War Era to the present. Students will examine African American responses to the legal institutionalization of segregation, self-help, education and the vote. Between discussions of Black participation in World Wars I and II, students will investigate the Harlem Renaissance and the development of jazz and the blues. Following a discussion of the Civil Rights Movement, the course will conclude with a discussion of Black conservatism. Prerequisite: ENG 103.

HIS 224 History of the Civil Rights Movement (3) This course examines chronologically the efforts by African Americans to obtain full civil rights from the pivotal period of 1940-1955 to the present. The class focuses on first-hand recollections of the Movement by African and non-African Americans, documentary and popular film representations of the Movement, and federal and state government responses to the Movement. The class discussions will seek to dispel myths about the Movement while exposing the stereotypes, distortions, and romanticism that surround the Movement. An integral part of that discussion will be evaluating the strategies utilized by those advocating and those opposing the movement for civil rights. The course concludes with an extensive discussion of black conservatism and efforts to “turn back the clock” on civil rights gains. Prerequisites: ENG 103 and ENG 104.

HIS 230 Families in American History (3) A chronological and thematic analysis of families from the seventeenth to the early twentieth century. The course focuses on familial contributions and responses to social, cultural, and economic change, with attention to class, ethnic, racial, and regional diversity. Typical topics include: images of the family and its life course; changing concepts and patterns of courtship; marriage; sexuality; parenting; childhood and adolescence; impact of industrialization and urbanization; alternate family lifestyles; and effects of demographic change.

HIS 240 The Plains Indians (3) This course is a study of the Plains Indians from their earliest beginnings to the present time. It will take a detailed look at the rise and development of Plains Indian societies, nomadic and village dwellers; the contact and conflict with Euro-Americans; the challenges faced by the Plains Indians to their traditional way of life during the early reservation years; and the struggle by the Plains Indians to retain tribal sovereignty, politics and culture. The course will make extensive use of visual artifacts, paintings, photographs and film to illustrate and analyze the historical and mythic images of the Plains Indians.

HIS 261 The Civil War (3) This course will examine the American Civil War (1861-1865) in its many aspects. Such topics as the origins of the crisis, the break-up of the Union, the major military campaigns, the actions and motives of Lincoln, Grant, Lee, Davis, and other key players will be explored, as well as the legacy of the war for future generations of Americans. Though military affairs will be emphasized, social, political and economic topics will be covered as well. There will be an extensive use of media.

HIS 276 American West: Film Study (3) This course can be taken either for English or History credit. We will study the settlement of the American West as it has been reflected in popular literature and films, focusing on the distinction between the actual frontier experience and the way that experience has been presented to us in our entertainment. Special emphasis will be placed on the Plains Indian, the mountain men, and the cowboys.

HIS 286 The American Worker: A Film Study (3) This course studies the American working class since the late Nineteenth Century and how Hollywood film has depicted the struggle of working people to enhance their lives within the capitalist system. The course will explore through lecture, film and readings such topics as the rise of the union movement; the great strikes; ideological controversy within the labor movement; and the role played by African-Americans, women, immigrants and radicals in working class history. Students will view in class major films dealing with the working class, such as The Molly Maguires, Matewan, The Grapes of Wrath, On the Waterfront, Salt of the Earth, and Norma Rae.
dealing with support service agencies and the responsibilities when responding to an emergency. Emergency Medical Services) roles and responsibilities are relevant to public safety forces’ (fire, police, and management provides students with information from an historical and aesthetic point of view and develop a keen sense of historical appreciation of the past through the review and study of documentary film.

HSD 150 Principles of Emergency Management (3) Principles of Emergency Management is intended to provide information that will enable persons just entering the profession or expanding their roles to have the ability to work with emergency management issues. The course tracks the history of Emergency Management from the days of Civil Defense and provides an overview of the characteristics, functions, and resources of an integrated system and how various emergency management services work together in an integration of resources and capabilities. Emphasis will be placed on how this system is applied to all hazards for all government levels, across the four phases and all functions of emergency management. Additionally, this course addresses the National Incident Management System, its components, and its relationship to Emergency Management. Through case studies, students will learn how Emergency Management has worked and evolved over the years.

HSD 152 Public Safety Critical Incident Management (1) Public Safety Critical Incident Management provides students with information relevant to public safety forces’ (fire, police, and emergency medical services) roles and responsibilities when responding to an emergency. Additionally, the course provides information dealing with support service agencies and the concerns and roles of private business and local government in supporting public safety forces in emergency situations. The course provides information to encourage cooperation of all groups and agencies at the scene of an emergency, with a key component focusing on the goals and critical tasks of each public safety agency operating at a given scene. Prerequisite: HSD students only or Permission of Instructor.

HSD 155 Introduction to Public Safety Response (3) Introduction to Public Safety Response will provide the student with a base-line understanding of the principles of responding to many types of emergencies. Course topics include: emergency response activities from police, fire crew, emergency medical service and business/industry perspectives; terrorism-related incidents and their specific response activities; and the interpretation and analysis of case studies to allow the student to develop an understanding of the needs of each discipline, and the importance of working together to manage emergencies. The course will provide basic incident command training, meeting the requirements of the National Incident Management System (NIMS). Students who take HSD 155 cannot also receive credit for HSD 152, HSD 182, or HSD 184.

HSD 156 Hazardous Waste Operations and Emergency Response (2) This course provides a comprehensive overview, covering all facets of hazardous waste management and emergency response. Topics include practical exercises and training which may be applied to business, industry, construction and institutions, including Federal and State rules and regulations, handling procedures and proper operation of a designated waste facility, storage, manifesting, shipment, employee training, proper use of safety equipment, emergency response procedures (spills response and clean up), cost effective waste reduction, and environmental reporting procedures. This course is offered as a one week 40-hour course over the winter intersession and will provide 40-Hour Hazardous Waste Operations and Emergency Response (HAZWOPER) certification as specified in OSHA 29CFR 1910.120.
HSD 170 Public Information Officer Basic Course (3) The Public Information Officer Basic Course provides students with the skills needed to perform public information duties as they relate to emergency management. The course focuses on the definition of the job of the public information officer. The course assists participants with building the skills needed for this position, such as oral and written communication, understanding and working with the media and the basic tools and techniques PIOs need to do the job. Prerequisite: Open to HSD students only or Permission of Instructor.

HSD 176 Disasters in Film and Media (3) Examination of the popular culture pertaining to natural and technological disasters that result from portrayals of catastrophic events in film by the media. Discussion of what can be done to alter myths about human behavior in mass emergency situations.

HSD 178 Emergency Response Planning (3) Planning is an essential function of an effective emergency management program and serves as a tool for emergency professionals for improving disaster management and public safety policies. The Emergency Response Planning course provides emergency management and public safety personnel with the knowledge, skills, and ability to develop or enhance their Comprehensive Emergency Management plans. The course will highlight the importance of building an integrated system for emergency planning that uses multi-agency teams to address mitigation, preparedness, response, and recovery. Prerequisite: HSD 150.

HSD 180 Emergency Management Leadership (3) The Emergency Management Leadership course is designed to provide students with the skills necessary to lead and influence others in the demanding setting of emergency management by increasing their range of skills in a variety of interpersonal areas. Students are taught to clearly identify problems and their root causes in order to be able to determine the appropriate type of decision-making style. Using a suggested process of problem-solving, participants will be able to apply creative solutions to both emergency and non-emergency situations, in an emergency management setting. These skills are then applied to the important issue of managing and developing volunteer resources. Students will learn the necessary skills to make appropriate volunteer assignments, structure programs to maintain or increase the skill levels of volunteers, and motivate volunteers to both maintain readiness and operate effectively during emergency situations. Students may not receive credit for both this course and PSY 211.

HSD 182 Basic Incident Command System (1) The Basic Incident Command System course is designed to increase the participants’ knowledge and understanding of the Incident Command System. Utilizing both lectures and small group activities, participants will acquire the ability to organize and manage an incident through implementing the ICS. The material covered during the course includes an introduction to the principles and features of ICS, organizational overview, incident facilities, incident resources and common responsibilities of key ICS positions. Prerequisite: HSD 152.

HSD 184 Emergency Response to Terrorism (1) The Public Safety Emergency Response to Terrorism course provides the knowledge and skills needed by public safety forces that respond to terrorist acts. The course provides those public safety and related support personnel the information to understand terrorism, its root causes, and the motivations behind it. The course also provides methods to enable students to recognize circumstances indicating a potential terrorist attack, and to protect themselves from a variety of potential dangers. Prerequisite: Open to HSD students only or Permission of Instructor.

HSD 252 Disaster Response and Recovery (3) The purpose of this course is to introduce students to the basic concepts and operations applicable in a disaster situation (particularly for major disasters) and enhance understanding of what the proper roles and responsibilities of various local and state emergency management officials are, why they matter, and how these roles and responsibilities relate to those carried out by the federal government. To foster multi-level partnership, the course emphasizes the problem-solving aspects of disaster operations as well as associated coordination requirements. This course will also discuss the use of the National Response Plan, Emergency Management’s place in the National Preparedness Goal, and current trends in disaster mitigation efforts. Prerequisite: HSD 150 or Permission of Instructor.

HSD 262 Intermediate Incident Command System (1.5) The Intermediate Incident Command System course is designed to increase the participants’ knowledge and understanding of the Incident Command System. Utilizing both lectures and small group activities, participants will acquire the ability to organize and manage staffing. The material covered during the course includes organization and staffing, organizing for incidents and events, incident resource management, air operations and incident and event planning. Prerequisite: HSD 150 or Permission of Instructor.

HSD 276 Emergency Management Software (1.5) Technology has become a critical partner in today’s Emergency Management and Homeland Security environment. From predicting damage, dispatching resources and managing the resources after dispatching, emergency managers will encounter sophisticated software in their jobs and during emergencies. This course will review several current software packages available for emergency managers, teach students software currently used in local and State emergency management as well as expose them to other computer programs which may assist them in performing hazard analysis, exercise design and response management.
HSD 278 Emergency Operations Center Management (1.5) The EOC Management course provides students with the knowledge and skills they need to design, initiate, build and operate an Emergency Operations Center. The curriculum is designed using a performance-based approach, which emphasizes learning activities that are easily transferable to the job.

HSD 280 Emergency Exercise Program Management (3) The Emergency Exercise Program Management course is intended to provide participants with the knowledge and skills to develop and conduct disaster exercises that will test a community's emergency operations plan and operational response capability. Prerequisite: HSD 150.

HSD 282 Advanced Incident Command System (1.5) The Advanced Incident Command System course is designed to increase the participants' knowledge and understanding of the inherent flexibility of the Incident Command System to manage major or complex incidents. Utilizing both lectures and small group activities, participants will require the ability to organize and manage major or complex incidents. The material covered during the course includes command and general staff duties and responsibilities, unified command, major incident management and area command structures. Prerequisite: HSD 262.

HSD 283 Practical Applications of Incident Management (3) The complexity of incident management is exacerbated when incidents deal with protecting lives and property. Large incidents typically managed by Emergency Managers require not only the didactic aspect of incident management education, but require the ability to use many principles taught in most emergency management courses. This is a companion course to HSD-283 which will allow a student to demonstrate and understanding of Emergency Operations plans and to apply the National Incident Management System principles and practices to a large, complex expanding disaster. Students will be required to research resource needs and the financial implications of decisions while using the Incident Command System.

HSD 284 Terrorism Response Planning for Communities and Schools (3) This course will help emergency planners, first responders, and others at all levels to review their preparedness efforts and response capabilities to a terrorist incident. It will also assist participants in the ongoing re-evaluations of threats, their current emergency operations plan and the implications of a terrorist incident on continuity of critical services and long-term recovery. The course also provides participants with the basic information and tools needed to develop effective plans for the wide array of potential emergencies that schools may face. Participants completing the course will be able to explain the importance of effective planning to others and to lead individuals in their school and community through the process of developing an effective multi-hazard program. Students cannot receive credit for both HSD 284 and HSD 160.

HSD 285 Emergency Management Internship (3) These 60 hours of practical experience in the business or government community will allow Emergency Management students to put various skills and knowledge they have gained through coursework to use. Students may find themselves creating hazard analyses, updating comprehensive emergency management operation plans, or observing incident managers at work, as well as other Emergency Management operations recommended by the supporting agencies. Prerequisite: Permission of Department.

HSD 286 Incident Action Planning for Rapidly Expanding Disasters (1.5) The complexity of incident management is exacerbated when incidents deal with protecting lives and property. Large incidents typically managed by Emergency Managers require not only the didactic aspect of incident management education, but require the ability to use many principles taught in most emergency management courses. This is a companion course to HSD-283 which will allow a student to demonstrate and understanding of Emergency Operations plans and to apply the National Incident Management System principles and practices to a large, complex expanding disaster. Students will be required to research resource needs and the financial implications of decisions while using the Incident Command System.

Hotel Technology

HTL 230 Housekeeping and Properties Management (3) A detailed examination of the servicing of the guest in a lodging establishment. Critical attention is applied to the care and preventive maintenance of both public and private areas within the hotel edifice with emphasis on equipment, personnel and modern innovations. Prerequisite: FSA 100.

HTL 232 Front Office Management (3) The day-to-day operations of the front office are examined from the progression of a room reservation to check-out. Room rate determination, billing systems, fiscal and accounting policies are emphasized. Traditional methods and systems are compared to computerized contemporary methods. Prerequisites: CIS 100, BUS 103.

HTL 234 Meeting Management Planning (3) Meeting Management Planning provides the student an opportunity to explore the functions of planning, developing, budgeting, marketing, and evaluating meetings and special events. Fall semesters only.
HUM 150 Human Services Theory, Skills, and Resources (3) This course introduces students to career fields in Human Services and other helping professions. It also teaches the beginning interpersonal skills and techniques essential for effective human services workers. Theories covered include human development, and the effects of family, culture, social systems, and diversity on the development of the individual. Students will learn how to apply this knowledge when working with people, and be introduced to the range of community resources for human services. Students will also explore career goals, clarify their personal and professional values, select a Human Services option, and begin the process of identifying a field internship placement for HUM 164: Field Instruction. Prerequisite: English and Reading placement must be at college-level proficiency.

HUM 159 Chemical Dependencies (3) This course provides a study of the field of alcohol and other drug abuse, including pharmacology, causes, legal aspects, intervention and prevention, and physiological and psychological dimensions, within the general framework of treatment services. The roles of professionals and non-professionals in intervention, counseling, and treatment will be examined. Emphasis will be placed on prevention, treatment, alternatives to alcohol and other drug abuse, and related self-destructive behaviors. Credit will not be given for both this course and HEA 209. A field component will be required.

HUM 162 Introduction to Social Work Practice (3) The student is introduced to generic social work methods; aspects of practice; the concepts of generalist; social systems interventions; and comprehensive social work service to individuals, small groups, and the community. Prerequisites: HUM 151 and HUM 153 or Permission of Instructor.

HUM 164 Human Services Field Instruction and Seminar I (3) This course is the required supervised practice experience enabling the student to develop competency for the delivery of Social Work, Counseling, or Alcohol and Substance Abuse Counseling services at the Associate Degree level. The introductory learning experience allows the student to begin to develop a generalist knowledge base of Human Services, Social Work, Counseling, or Alcohol and Substance Abuse Counseling practice. Students will complete a 100-hour field placement at a site approved by the department. A medical examination, tuberculin test, background check and/or fingerprint review may be required. Prerequisites: HUM 150 and one of: HUM 162, 260, or 268, or Permission of Instructor.

HUM 165 Introduction to Counseling (3) This course is an introduction to three broad areas of counseling: historical and professional foundations of the counseling profession, counseling theories, and counseling specialties (focusing on specific populations with whom counselors work or professional practices in which they are engaged). It is designed to provide an understanding of the counseling profession, an overview of the developments of counseling, fundamental counseling theories, and the variety of counseling specialty areas of practice. It is recommended that students take PSY 103 General Psychology before taking this course.

HUM 203 Child Welfare and Social Work (3) This course presents the student with an overview of the child welfare system, particularly as it pertains to working with children and families within the discipline of social work and the community-at-large. Utilizing a strengths-based empowerment perspective in child welfare, the course will provide basic knowledge and understanding of the historical and ongoing development of the child welfare system, explore current services offered in child welfare agencies and examine practice decisions based on several social work methodologies. The impact of culture norms and the social marginalization of populations will be discussed as they relate to the definitions of abuse and the welfare of children and families. Prerequisites: HUM 151 and HUM 153 or Permission of Instructor.

HUM 205 Psychosocial Impact of HIV/AIDS (3) This course provides a forum for students to learn about the history and social environment of HIV/AIDS, patterns of infection and psychosocial issues such as stigma, isolation, trauma, grief and poverty. Students will also explore the role of politics, public health, and community action, and the student's responsibility to family, friends, and the community, both personally and as a professional in the helping professions.

HUM 226 Group Skills for Alcohol and Substance Abuse Counseling (3) This course is designed to present a variety of theoretical approaches to group techniques applicable to counseling alcoholics, addicts and adult children. Experiential exercises for practicing group techniques and skills will be utilized including screening clients and setting up a group. There will be an emphasis on managing group processes such as norm development dealing with reluctance and resistance and other disruptive techniques. The emphasis of the course is on group leader preparation and training. Prerequisite: HUM 159 or Permission of Instructor.

HUM 227 Issues in Alcohol and Substance Abuse Treatment Programs (3) This course is a survey of issues related to the treatment approaches in alcohol and drug treatment programs. Treatment of special populations, child abuse reporting, domestic violence, treatment in correctional institutions, specialized addictive
treatment modalities and employee assistance programs will be covered. Issues related to the role of the professional in alcoholism and substance abuse treatment will be discussed. Other topical issues will be introduced based on class need and current trends in the field. Prerequisite: HUM 159 or Permission of Instructor.

**HUM 228 Adolescent Alcohol and Substance Abuse (3)** This course is designed to give basic knowledge regarding adolescent alcohol and drug abuse. The causes, treatment, and prevention of substance abuse and the bio-psycho-social development of adolescents will be studied. Prerequisite: HUM 159 or Permission of Instructor.

**HUM 229 Alcohol/Addictions and Family Systems Treatment Programs (3)** This course is designed to provide an in-depth look at the effects of alcoholism and substance abuse on the family system. The unit of study is the family. Topics include a variety of approaches for assessing the family, designing intervention and treatment programs, and addressing co-dependency treatment issues including family roles. Personal and professional development is studied, especially the influence of co-dependency. Also included are the models of healthy, troubled and dysfunctional family patterns. Prerequisite: HUM 159 or Permission of Instructor.

**HUM 230 Human Services With Diverse Populations (3)** This course examines the domestic and global contexts of diversity, the impact of ethnicity, race, gender, ability/disability, socio-economic class and sexual orientation on our lives. Students will develop self-awareness regarding their own feelings, assumptions and behaviors in relation to others different from themselves, and will explore how these impact their personal values, belief system and interactions with others.

**HUM 260 Social Work Interviewing and Counseling (3)** This course addresses the functions, roles, and techniques essential for effective social work/human services work. It encompasses social work values, knowledge and skills in the interviewing and the counseling relationship. Prerequisites: HUM 151 and HUM 153.

**HUM 261 Social Work Policy (3)** This course examines the history of social welfare and institutionalized social services and the impact on social workers and other helping professionals. Topics include: child welfare, public health, racism, sexism and the evolution of social work as a profession. Prerequisites: HUM 151 and HUM 153 or Permission of Instructor.

**HUM 263 Human Services Field Instruction and Seminar II (3)** This course is an optional second-level field internship. The in-depth learning experience builds on the competencies of the first level and allows students to further develop their knowledge base of Human Services, Social Work, Counseling, or Alcohol and Substance Abuse Counseling practice. Students will complete a 100-hour field placement at a site approved by the department. A medical exam, tuberculin test, background check and/or fingerprint review may be required. Prerequisite: HUM 164 or Permission of Instructor.

**HUM 265 Aging and the Family (3)** This course is designed to give basic knowledge regarding aging and the family. The causes, treatment, and prevention of the aging process will be studied. The course will introduce the student to the knowledge and skills needed to assess, diagnose and treat substance abusing clients from a social work perspective. Prerequisite: HUM 159.

**HUM 266 Social Work With Alcohol and Substance Abuse (3)** This course is designed to provide an in-depth look at the effects of alcoholism and substance abuse on the family system. The unit of study is the family. Topics include a variety of approaches for assessing the family, designing intervention and treatment programs, and addressing co-dependency treatment issues including family roles. Personal and professional development is studied, especially the influence of co-dependency. Also included are the models of healthy, troubled and dysfunctional family patterns. Prerequisite: HUM 159 or Permission of Instructor.

**HUM 267 Families in Crisis: Human Services Intervention (3)** This course will introduce a study of families in crisis using intervention dynamics as the major treatment methodology. Focus is on specific developments and situational crises, which interfere with family functioning and coping abilities. The course will discuss social services, institutional services, and the role of the crisis counselor.

**HUM 268 Social Work With Alcohol and Substance Abuse (3)** This course is designed to provide an in-depth look at the effects of alcoholism and substance abuse on the family system. The unit of study is the family. Topics include: child welfare, public health, racism, sexism and the evolution of social work as a profession. Prerequisites: HUM 151 and HUM 153 or Permission of Instructor.

**HUM 269 Social Work and People With Disabilities (3)** This course will include a brief history of disabilities in our society; with definitions and discussion of various disability groupings, providers, services and interventions as well as many of the current issues that individuals with impairments and disabilities face today. It considers the impact of the Americans with Disabilities Act of 1900 (ADA) and its effect on public awareness and attitudes. Prerequisite: HUM 151, 153 or Permission of Instructor.

**HUM 270 Assertiveness Training (1)** The purpose of this course is to learn the theory of assertiveness training as a method for developing skills in assertive communication, to conduct oneself in an effective, direct, appropriate manner in interpersonal situations, especially at work. Teaching approaches include lecture, discussion, modeling, role rehearsal, videotaping, etc. Prerequisite: English and Reading placement must be at college-level proficiency.
IND 101 Design and the Built Environment (2)
This course is an introduction to visual literacy and design, the architecture and interior professions and the built environment. It is offered as an exploration of the built environment and is an open elective. Topics to be discussed will include visual literacy, design process and principles, technology in design and the environment, professional practice and career options. It is part of the three-course foundation sequence required for all Architecture and Interior Design students and must be completed prior to enrollment in any additional courses in these curricula. Co-requisites: ARH/IND 150 and 170.

IND 111 Design Studio 2 (4)
This is the first of three design studio courses. Students begin to explore elements of design and their relationships in three dimensions. Design concepts and processes are discussed in detail. Architectural and interior design concepts of space, organization, circulation, scale, structure, volume, massing, fenestration and materials are analyzed and discussed. This class meets 6 hours per week. Prerequisites: ARH/IND 101, 150, and 170; co-requisites: ARH/IND 120 and 140, or Permission of Instructor.

IND 120 Drafting Studio 1: Wood Frame (3)
This course will develop basic architectural drafting skills (digital and manual). The student will demonstrate an understanding of these skills through the development of a set of architectural drawings for a wood frame house or similar structure. This class meets 4 hours per week. Prerequisites: ARH/IND 101, 150, and 170.

IND 140 Wood Frame Construction (3)
This is a lecture course covering the materials and methods of contemporary residential construction. The characteristics, properties, performance and application of exterior and interior materials and systems used in wood frame construction will be discussed.

IND 141 Interior Finish Systems and Furnishings (3)
This course concentrates on a comparative analysis of commonly used floor, wall, and ceiling finish systems for residential and commercial building interiors. Furnishings, furniture and office landscape systems will also be discussed. Prerequisite: ARH/IND 140.

IND 150 Graphic Communications Studio 1 (4)
This foundation studio in graphic communications will be used to explore design principles. Freehand and digital techniques will be introduced that help the student appreciate forms, texture, and composition. Instruction will be given in pencil techniques, perspective principles, and the use of digital tools. This course will develop the required graphic skills to prepare architecture and interior design students for the next three semesters of course work. This class meets 6 hours per week. Co-requisites: ARH/IND 101 and 170.

IND 170 Technology: Design and Production (3)
This course will develop the technology skills required for architecture and interior design students. The students will learn how to create, modify, communicate, collaborate, transmit and present solutions to problems using specific software applications including AutoCAD, SketchUp, ANGEL CMS, and PowerPoint. Co-requisites: ARH/IND 101 and 170.

IND 215 Design Studio 3 (4)
This is the second design studio for Interior Design. Students are expected to apply knowledge of design concepts and design process to “real-life” design problems. Programming, aesthetics of interior spaces, context, fenestration, materials, furniture, structure, and design development will be explored. Experimentation with space, form, light, and proportion will be stressed. Significant trends in interior and architectural design, as practiced by recent leading interior designers and architects, will be discussed. This class meets 6 hours per week. Prerequisite: ARH/IND 111 or Permission of Instructor; co-requisite: ARH/IND 256 or Permission of Instructor.

IND 216 Design Studio 4 (4)
This is the third design studio for Interior Design. This studio is a continuation of IND 215 and will require in-depth analysis of design problems and higher expectations for design presentations. Students are expected to apply knowledge of design concepts and design process to “real-life” design problems. Programming, aesthetics of interior spaces, context, fenestration, materials, furniture, structure, and design development will be explored. Experimentation with space, form, light, and proportion will be stressed. Significant trends in interior and architectural design, as practiced by recent leading interior designers and architects, will be discussed. This class meets 6 hours per week. Prerequisites: ARH/IND 215 and 256, or Permission of Instructor.

IND 230 History of Architecture and Interiors 1 (3)
This is a survey course that traces developments in design, construction, materials and interiors from Prehistory to the dawn of the Renaissance. The comparative method is used to study the impact of economic, religious, political, sociological and technological developments on resultant building types, architectural forms, interior designs, furnishings and decorative arts.

IND 231 History of Architecture and Interiors 2 (3)
This is a survey course that traces developments in design, construction, materials and interiors from the dawn of the Renaissance to the present day. The comparative method is used to study the impact of economic, religious, political, sociological and technological developments on resultant building types, architectural forms, interior designs, furnishings and decorative arts.

IND 240 Residential Interiors (3)
This course is an introduction to design and decoration of residential interiors. Topics include design principles
and approaches, sustainable environments and materials, furniture and decorating styles, fabrics, window treatments, accessories, and business practice. Prerequisites: ARH/IND 111, 120 and 140 or Permission of Department.

**IND 256 Graphic Communications III (3)**

An advanced course in perspective rendering. Students are expected to apply perspective drawing skills acquired in IND 150 to generate color renderings of building interiors and exteriors. Students concurrently taking Design Studio II are required to take this course and to use their design solutions as a base for required rendering projects in IND 256. Prerequisite: IND 150 or Permission of Department.

**IND 266 Independent Study (1)**

**IND 291 Internship in Interior Design (1)**

This course is designed for students in their second year of interior design coursework, giving them an opportunity to obtain real-world experience in the interior design and construction industry. Internships and co-op job opportunities are available throughout the community; however, there is no guarantee of internship placement. The ultimate responsibility for obtaining a placement rests with the student. Assistance is provided by department faculty and Onondaga’s internship office. Internships may be paid or unpaid. A learning contract containing specific educational objectives that relate to both the work experience and academic studies is developed between the student and a faculty internship coordinator. Course requirements include a minimum of 60 hours of work, maintenance of a work journal, and a final paper. Open to IND majors only. Prerequisites: Approval of department, minimum G.P.A. of 2.5, sophomore standing.

**ITALIAN**

**ITA 101 Elementary Italian I (3)**

This learner-centered course is designed for students with little or no previous knowledge of Italian. Students acquire basic grammatical and lexical skills that will enable them to communicate in routine social or professional situations within an authentic cultural context. Upon successful completion of ITA 101, students may enroll in ITA 102. This course also fulfills the Global Awareness requirement at Onondaga. Prerequisite: ITA 101, or two to three years of high school Italian, or Permission of Instructor.

**ITA 102 Elementary Italian II (3)**

This course is a sequel to Elementary Italian I. It builds upon the basic grammatical, linguistic, communicative and cultural concepts learned in ITA 101. Upon successful completion of ITA 102, students may enroll in ITA 201. This course also fulfills the Global Awareness requirement at Onondaga. Prerequisite: ITA 101, or two to three years of high school Italian, or Permission of Instructor.

**ITA 201 Intermediate Italian I (3)**

This dynamic course draws upon previously acquired knowledge, while introducing students to more complex grammatical and lexical structures to further develop communicative proficiency and cultural knowledge. The course is conducted mostly in Italian. Upon successful completion of ITA 201, students may enroll in ITA 202. This course also fulfills the Global Awareness requirement at Onondaga. Prerequisite: ITA 102, or four years of high school Italian, or Permission of Instructor.

**ITA 202 Intermediate Italian II (3)**

This course is a sequel to Intermediate Italian I. It expands upon complex grammatical and lexical structures. It is conducted entirely in Italian and provides a solid foundation for advanced study. Upon completion of ITA 202, students may enroll in any intermediate-high level course. Students who successfully complete the ITA 202 level have fulfilled their language requirement for the A.A. in Humanities and Teacher Prep programs. The three additional credits may be taken either as a language course or as a general elective. This course also fulfills the Global Awareness requirement at Onondaga. Prerequisite: ITA 201, or five years of high school Italian, or Permission of Instructor.

**JOURNALISM**

**JRN 121 Introduction to Journalism and the Mass Media (3)**

Designed to increase students’ awareness of the mass media and its impact on society: development of the media, including writing types and styles; ethical and social problems; study and practice of journalistic writing; analysis of major news media with emphasis upon newspapers. Prerequisite: ENG 103. Can be taken simultaneously with ENG 104.

**JRN 123 Newspaper Production (1)**

Familiarizes students with all aspects of newspaper production and provides practical application of journalism theories with participation in the activities of the student newspaper. Students attend weekly meetings, write articles, etc. Includes one and one-half hour seminar/discussion.

**JRN 157 Electronic Media Writing (3)**

This course helps students to master the diverse writing styles and formats used in writing for broadcast on radio, television, and cable. These include public service announcements (PSAs), station IDs, promotional announcements, script formats, commercials, news copy, and program materials. Emphasis is on developing broadcast copy style, distinguishing words directed toward the ear and the eye. Prerequisite: ENG 103.
JRN 227 Writing for Emerging Technologies (3) Fast-paced and widespread developments in technology have changed the way people distribute, access, and understand information. With the Internet serving both as a medium for text and a delivery system for other kinds of digital content, competitive employees in the marketplace must be able to provide clear and effective pieces of Web-based communication and other kinds of documents. This course will discuss the issues surrounding the new technology. Topics covered in the course include First Amendment law and the Internet, “repurposing” stories across platforms, and clear writing techniques. This course is offered online only. Prerequisite: ENG 104.

JRN 251 Writing for the Media (3) Elements of writing news stories: style and structure, news sources, types of stories. Discussion and criticism of various kinds of writing for the media, with emphasis on newspapers; consideration of publicity writing. It is recommended that students take ENG/JRN 121 first. Prerequisites: ENG 103 and ENG 104, and ability to type.

JRN 252 The New Non-Fiction and Popular Writing (3) A survey of contemporary attempts to use the techniques of fiction writing in works of non-fiction and an examination of some outstanding examples of journalistic feature writing, magazine writing, and criticism. Students will have the choice of writing critical reviews or doing non-fiction and related writing. Includes study of one relevant documentary motion picture and one full-length non-fiction work. Prerequisites: ENG 103, ENG 104.

JRN 253 Newspaper Editing Laboratory (2) Open to senior members of the student newspaper. Provides practical application of editing theories. Students must be familiar with all aspects of newspaper production, and will help train and direct the staff of the student newspaper appropriately. Students attend weekly staff and editorial meetings. Includes weekly seminar discussions, four individual consultations with the instructor, and a short evaluative paper.

JRN 255 Writing for Electronic Media (3) This course helps students master the diverse writing styles and formats used in writing for broadcast, on radio, television and cable. These include public service announcements (PSAs), station IDs, promotional announcements, script formats, commercials, news copy and program materials. Emphasis is on developing broadcast copy style, distinguishing words directed towards the ear and eye. Prerequisites: ENG 103 and ENG 104.

Labor Studies

LBR 111 Social and Professional Etiquette (3) This course introduces students to the development and use of social and professional etiquette rules and customs as currently practiced in the United States. Emphasis is placed on understanding the communicative nature of etiquette and its uses in furthering social and professional interactions. This lecture/demonstration course will include practice in various verbal and nonverbal skills required in the current social and professional climate, including instruction in netiquette. Additionally, students will be introduced to etiquette rules and customs from around the world and will practice using these as a way to prepare for the global marketplace. This course meets with COM 111.

LBR 207 Communication @ Work (3) This course is an introduction to the theory and practice of communication in the workplace. The focus of the course is interpersonal communication in a professional context. Topics covered include: meeting management, interview techniques, participation in team and group communication, preparation of professional presentations, managerial communication, diversity in the workplace, and listening skills. This course emphasizes the development of practical and critical skills. Prerequisite: Any 100-level COM course or Permission of Instructor.

LBR 210 Contract Bargaining I (3) A basic course designed to equip students with a conceptual understanding of the collective bargaining process. Among the topics are the nature of the collective bargaining process, the scope of bargaining, collective bargaining structure, wage patterns, and impasse procedures.

LBR 211 Union Administration (3) This course applies organization theory to the administration of unions and analyzes the requirements placed upon union officers in the conduct of their responsibilities. The course investigates the role of the shop steward, executive board, officers and union staff in their relations with the members, with employer representatives, and with the public.

LBR 215 Contemporary Labor Problems (3) A survey of the major challenges that confront the labor movement in the 1970’s. Students are briefed on the background of each problem and discuss and analyze a broad range of solutions proposed by the experts.

LBR 225 Contract Administration (3) A study of union administration; the underlying structure and the relationship of its members, locals, and national organizations; the implementation of the collective bargaining contract in its day-to-day administration. Emphasis will be placed on the basic principles of grievance procedure.
LBR 230 Labor and the American Economy (3) A general introduction to the development and structure of the American economy, examining the activities that people carry on - producing, saving, spending, paying taxes - to satisfy their individual and collective economic needs and desires. Emphasis is given to topics of special concern to working people such as employment and unemployment, price stability, and the governmental role in the economy.

LBR 240 International Affairs and Labor (3) American unions and their relationship to international organizations affecting labor such as the International Labor Organization and International Labor Trade and multinational corporations; labor's stake in U.S. foreign policy.

LBR 241 Arbitration (3) A study of the function of arbitration in labor-management relations, including preparation for arbitration, the conduct of the hearing, evidence and proof, and the standards used by arbitrators in reaching a decision. Students will participate in mock arbitration hearings.

LBR 251 Social Behavior and Work (3) This course deals with human relations and leadership skills most frequently used in union and work settings. It is designed to provide students with fresh insights into human relations through the study of current concepts in sociology, psychology and other behavioral sciences.

LBR 254 Labor Law (3) A survey of the major areas of labor law, including union rights and permissible employer responses in organizing campaigns, protected activities under the NLRA, ground rules for collective bargaining, arbitration and enforcement of collective agreements, strikes and secondary boycotts, and public sector problems.

LBR 255 Labor History (3) A review of the major developments in American labor history form colonial times to the present with special emphasis on the changing goals of labor, early union efforts, the evolution of labor legislation, the development of the AFL and the CIO, the changing relationship between employer and employee.

LBR 256 Dispute Resolution (3) An introduction to dispute resolution theory and practice with special emphasis on its applications in the field of industrial and labor relations. The course examines the nature and sources of conflict in various areas of industrial society and the role of negotiations, mediation arbitration and fact-finding in the resolution of disputes.

LBR 259 Public Sector Collective Bargaining (3) An introduction to public sector collective bargaining which focuses on public sector law as well as unique features of bargaining in this sector. Special attention will be given to the theory of bargaining as well as tactics and strategies employed in the process.

LBR 273 Health Hazards in the Workplace (3) A survey course on occupational health and safety. The course includes a history of occupational health and safety at federal, state and city levels; analysis of specific health hazards; links to environmental health issues; and relationships to workers' compensation and other disability coverage.

LBR 280 Oral and Written Communications (3) One of the most important skills a trade union leader must have is the ability to communicate effectively with other union members, employers, government representatives, and the public at large. These courses interweave the various kinds of speaking and writing the student might find useful in his work as a student and as a leader in his organization. Topics include: organizing ideas and preparing a written outline, writing a business letter, preparing a resolution or petition, writing minutes of a meeting, taking notes at meetings or lectures, speaking from an outline, basic parliamentary procedures.

LBR 287 Labor, Government, and Politics (3) A survey of the ways the political process affects labor, the nature of government operations, political lobbying, pressure groups and political parties.

LBR 299 Internship (3) A combined work and classroom experience involving placement with local labor or business organizations in the industrial and labor relations field. Student will combine work experience with seminars to identify learning objectives in the work experience and measure growth of labor relations skills.

**Law Enforcement**

FOR MORE INFORMATION, CONTACT THE PUBLIC SAFETY TRAINING CENTER IN J. STANLEY COYNE HALL, ROOM JSC100, (315) 498-6046.

LEC 102 Principles of Law for Campus Peace Officers (4) This course is an introduction to the law as required of Campus Peace Officer candidates. Topics include jurisdiction and responsibilities of law enforcement, criminal and civil adjudicatory process and court structure, constitutional law, penal law, criminal procedure law, juvenile law, civil liability, ancillary NYS statutes, and vehicle and traffic law. Departmental permission required. Only open to Campus Peace Officers.

LEC 103 Principles of Law for Law Enforcement Officers (7) An introduction to the law as required of candidates. Topics include jurisdiction and responsibilities of law enforcement, criminal and civil adjudicatory process and court structure, constitutional law, penal law, criminal procedure law, juvenile law, vehicle and traffic law. Open to LEC students only.

LEC 104 Campus Peace Officer Procedures (4) Campus Peace Officer Procedures teaches candidates the various topics, knowledge, actions and procedures required of a peace officer. Topics include observation and patrol procedures, reacting to and dealing with bombs and bomb threats, the nature and control of civil disorder, domestic violence, crimes in progress, traffic enforcement procedures, arrest processing and dealing with intoxication (alcohol). Only open to Campus Peace Officers.
LEC 104L Campus Peace Officer Procedures - Subject Management Proficiency (4) Students are instructed in the basic physical/psychomotor skills required of a police officer candidate. Students become certified as competent in the areas of arrest techniques, defensive tactics, the use of aerosol and impact devices, and riot control formations. Only open to Campus Peace Officers.

LEC 105 Law Enforcement Procedures (8) Law Enforcement Procedures teaches candidates the various topics, knowledge, actions and procedures required of a police officer. Topics include observation and patrol procedures, reacting to and dealing with bombs and bomb threats, the nature and control of civil disorder, domestic violence, crimes in progress, traffic enforcement procedures, arrest processing and dealing with intoxication. Prerequisite: Open to LEC students only; co-requisite: LEC 105L.

LEC 105L Law Enforcement Procedures - Proficiency (5) Students are instructed in the basic physical/psychomotor skills required of a police officer candidate. Students become certified as competent in the areas of arrest techniques, defensive tactics, the use of aerosol and impact devices, riot control formations, emergency vehicle operation, unusual occurrences/critical incident management. Prerequisite: Open to LEC students only; co-requisite: LEC 105.

LEC 108 Campus Peace Officer Investigation Techniques (4) Campus Peace Officer Investigation Techniques teaches candidates the various topics, knowledge, actions and procedures required to investigate a crime. Topics include information development, interviewing techniques, physical evidence, injury and death cases, sex crimes, criminal investigation techniques specific to larceny (specifically, auto theft, burglary, robbery and arson), narcotics and dangerous drugs, case preparation, organized crime and missing or abducted children. Only open to Campus Peace Officers.

LEC 109 Law Enforcement Investigation Techniques (4) Law Enforcement Investigation Techniques teaches candidates the various topics, knowledge, actions and procedures required to investigate a crime. Topics include information development, interviewing techniques, physical evidence, injury and death cases, sex crimes, criminal investigation techniques specific to larceny (specifically, auto theft, burglary, robbery and arson), narcotics and dangerous drugs, case preparation, organized crime and missing or abducted children. Prerequisite: Open to LEC students only.

LEC 110 Community Relations for Campus Peace Officers (2) This course covers community relations issues and skills for the candidate. Topics include community relations, community resources, services to victims and witnesses, crime prevention, crimes against the elderly, ethical awareness issues, cultural diversity, bias related incidents, sexual harassment issues and contemporary issues with which law enforcement is confronted. Only open to Campus Peace Officers.

LEC 111 Community Relations for Law Enforcement Officers (2) This course covers community relations issues and skills for the candidate. Topics include community relations, community resources, services to victims and witnesses, crime prevention, crimes against the elderly, ethical awareness issues, cultural diversity, bias related incidents, sexual harassment issues and contemporary issues with which the police are confronted. Prerequisite: Open to LEC students only.

LEC 113L Campus Peace Officer Procedures - Tactical & Emergency Response (4) Students are instructed regarding vehicular response to emergency situations. Other topics include the establishment of the National Incident Command System and implementation of basic life support procedures. Only open to Campus Peace Officers.

LEC 114 Phase 2 - Basic Course for Law Enforcement Officers (2) Course topics include the proper circumstances and uses of firearms; counter-terrorism issues, actions and reactions techniques; command and control issues for first responders; and tactics associated with detecting fraudulent identification documents. Prerequisite: Only sworn police officers may attend the basic course for police officers (phase 2); co-requisite: LEC 114L.

LEC 114L Phase 2 Laboratory - Basic Course for Law Enforcement Officers (5) Students are instructed in and are certified as competent in the areas of firearms training, counter-terrorism, DWI detection, standard field sobriety testing, and supervised field training review and orientation. Open to sworn police officers. Co-requisite: LEC 114.

LEC 120 EMS Certified First Responder (3) An introduction to EMS systems. Topics include: patient assessment, airway management, shock/hemorrhage control, trauma orientation, medical emergencies/ OB emergencies and cardiology overview/defibrillation/CPR skills. Credit for this course may not be applied to any degree or certificate requirements. All EMS courses are offered in conjunction with the Onondaga County EMS Bureau. Contact the EMS Bureau for registration information.

LEC 126 Police Supervision (3) This course covers those areas pertinent to law enforcement supervision such as administrative procedures, leadership, effective communication, community relations, National Incident Management System and national response plan. The General Municipal Law requires that all first-line supervisory personnel complete this course. This course is open to sworn personnel only.

LEC 128 Instructor Development for Law Enforcement Officers (2) This course will give police personnel the ability to research, prepare and communicate knowledge in the field of law enforcement. Lessons focus on setting instructional objectives, factors that influence adult learning, communication skills, the instructional process, and methods of evaluating course effectiveness. Prerequisite: This course is open to sworn law enforcement personnel only.
Library

FOR MORE INFORMATION, CONTACT THE LIBRARY
DEPARTMENT IN COULTER HALL, ROOM C112, (315) 498-2335.

LIB 100 The Art of Inquiry (1) A seminar in practical general education with emphasis on such questions/issues as: What is the art of inquiry and how does it relate to the idea of the library? What questions are most worth asking? What does it mean to tend to things artfully? What is the "gift of reading"? This course will be of special value for students who are interested in finding their teachers.

LIB 105 Strange Frequencies: Deciphering Manufactured Information (3) This course is a critical examination of how information is manufactured, distributed and used in the Digital Era. Emphasis will be on assessing the impact of digital technologies on the production, presentation and use of information. Topics include but are not limited to: convergence of information producing organizations, data smog, doublespeak, information anxiety, information ethics, "it's an ad, ad, world," media bias, mediated reality, mediated voyeurism, push technology, misinformation, disinformation, rhetoric vs. reason, customizing information and the Internet/Web as content providers.

LIB 210 Real World Research (1) Finding information today is easier than it's ever been before. But can you be sure what you've found is accurate? That question forms the basis of LIB 210. Topics include: types of information resources (e.g. Internet, print, etc.); search techniques; primary resources; critical evaluation; copyright and intellectual property issues; and the use and value of libraries and information centers in the twenty-first century. Students will learn how to locate and access high-quality, authoritative information. In addition, students will attain a basic familiarity with primary research methods and interpretation.

Literatures, Cultures and Civilizations

FOR MORE INFORMATION, CONTACT THE MODERN LANGUAGES DEPARTMENT IN MAWHINNEY HALL, ROOM M308, (315) 498-2305.

LCC 220 French Literature and Civilization in English II (3) A survey of French literature and civilization from the seventeenth to the twentieth centuries, examining representative works within the context of artistic, historical, and intellectual developments. Lectures and readings in English. This course fulfills the SUNY Gen Ed western civilization requirement as well as the Global Awareness requirement for the A.A. in Humanities and Social Sciences. However, it does NOT fulfill the foreign language requirement for any degree program.

LCC 221 French Literature and Civilization in English I (3) A survey of French literature and civilization from the Middle Ages to the Renaissance, examining representative works within the context of artistic, historical and intellectual developments. Lectures and readings in English. This course fulfills the SUNY Gen Ed western civilization requirement as well as the Global Awareness requirement for the A.A. in Humanities and Social Sciences. However, it does NOT fulfill the foreign language requirement for any degree program.

LCC 230 Literature and Civilization in English (3) A one-semester course examining the major social, intellectual, and artistic trends. Lectures and readings in English. This course fulfills the SUNY Gen Ed western civilization requirement. However, it does NOT fulfill the foreign language requirement for any degree program.

LCC 231 Italian Literature and Civilization in English I (3) A one-semester survey of Spanish civilization and culture with emphasis on the major social, intellectual, and artistic trends. Lectures and readings in English. This course fulfills the SUNY Gen Ed western civilization requirement. However, it does NOT fulfill the foreign language requirement for any degree program.

LCC 235 Latin American Civilization in English (3) A one-semester course examining the geographical areas, Indian cultures, Spanish heritage, and 20th century problems of Latin America. Lectures and readings in English. This course fulfills the SUNY Gen Ed requirement for other world civilizations as well as the Global Awareness requirement for the AA in Humanities and Social Sciences. However, it does NOT fulfill the foreign language requirement for any degree program.

Mathematics

FOR MORE INFORMATION, CONTACT THE MATHEMATICS DEPARTMENT IN MAWHINNEY HALL, ROOM M210, (315) 498-2328.

MAT 079 Pre-Algebra (3EQ) This course will provide students with concepts and techniques associated with pre-algebra mathematics. Topics include arithmetic of fractions, decimals, proportions, percents and an introduction to signed number operations. This course will emphasize both skill development and an application of these skills to real world situations. Prerequisite: The ability to correctly perform the four basic operations with whole numbers.
MAT 085 Math Skills and Applications (1EQ)
Provides learning reinforcement for students enrolled in the areas of arithmetic, elementary algebra, or intermediate algebra. Both mathematical skills and applications will be emphasized. Students may enroll in this course only with a math diagnostician’s recommendation. This course will be offered in a workshop format as needed or as requested by other disciplines requiring math skills (i.e. Nursing, health related professions, Economics).

MAT 086 Pre-Algebra and Beginning Algebra (6EQ) This course is designed for students who need to review arithmetic skills and gain an understanding of beginning algebra concepts. It is especially appropriate for pre-health students. Topics include fractions and mixed numbers, decimals, ratio/proportions, percents, metric system, real number systems, algebraic operations, linear equations and inequalities, coordinate systems, systems of equations, polynomials and factoring. Students may not take both MAT 080 and any of MAT 079/087/088. Prerequisite: Knowledge of whole number arithmetic.

MAT 087 Beginning Algebra (3EQ) Concepts and techniques associated with beginning algebra. Topics include: real number systems, algebraic operations, linear equations, coordinate systems, powers and roots, polynomials and factoring. Prerequisite: Arithmetic skills.

MAT 088 Beginning Algebra and Applications (4EQ) This course is designed for students who have no previous exposure to algebra. The skills and applications component provides students with an opportunity to practice newly acquired skills and to use these skills to solve practical problems. Topics include: real number systems, algebraic operations, linear equations, coordinate systems, powers and roots, polynomials and factoring. Prerequisite: Arithmetic skills or students with no prior knowledge of algebra.

MAT 106 Mathematical Applications I (4) The first course in a two-semester sequence of intermediate algebra and trigonometry with technical applications. Topics include trigonometric functions, vectors, units of measurement and approximate numbers, fundamental concepts of algebra, functions and graphs, systems of linear equations, determinants, factoring and fractions, quadratics, variation and geometry (areas and perimeters of common plane figures, volumes and surface areas of common solids). The scientific calculator will be used throughout the course. Open to Telecommunications Technology majors only. This course is not applicable as an elective for any other degree granting program. Prerequisite: Beginning algebra or equivalent.

MAT 107 Mathematical Applications II (4) The second course in a two-semester sequence of intermediate algebra and trigonometry with technical applications. Topics include exponents and radicals, exponential and logarithmic functions, ratio, proportion and variation, oblique triangles, graphs of sine and cosine functions, complex numbers and their applications, inequalities, introduction to statistics and a non-rigorous introduction to calculus. A scientific calculator and computer software will be used throughout the course. Open to Telecommunications Technology majors only. This course is not applicable as an elective for any other degree granting program. Prerequisite: MAT 106.

MAT 112 Nature of Mathematics (3) The purpose of this course is to improve problem-solving skills and expand students’ understanding of the nature of mathematics. The topics include: problem-solving, number theory, Euclidean and Non-Euclidean geometry, the concept of infinity, probability and optional topics chosen from topology, chaos, and fractals. This course is primarily for liberal arts students entering fields of study which do not have a strong mathematical emphasis. Prerequisite: Beginning algebra or equivalent.

MAT 113 Contemporary Mathematics (3) The purpose of this course is to show a direct connection between mathematics and concrete real-life problems. Topics will include voting theory, routing problems (graph theory), and either scheduling, fair division or apportionment. This is a course primarily for liberal arts students entering fields of study which do not have a strong mathematical emphasis. Participation in group work is required for classroom sections. Prerequisite: Beginning algebra or equivalent.

MAT 114 Intermediate Algebra With Applications (4) Topics include solving linear equations and inequalities, graphs, functions, systems of equations, polynomials and polynomial functions, factoring, rational expressions and equations, radical expressions and equations, geometric concepts, quadratic equations, and applications. This course will not count toward any elective credit for Math/Science majors. Prerequisite: Beginning algebra or equivalent.

MAT 115 Modeling for Decision Making (3) Linear systems, matrices, linear programming, mathematics of finance, counting procedures, sets, probability, functions, exponents. Use of specific technology will be required. Not open to Math/Science students. Prerequisite: Intermediate algebra, college algebra or equivalent.

MAT 116 Decision Making With Calculus (3) This is the second of a two-semester sequence designed for business transfer and CIS students. Topics include: limits; instantaneous rates of change; differentiation; exponential and logarithmic functions; antiderivatives; indefinite integrals; definite integrals; and applications to business, managerial and social sciences. Not open to Math/Science majors. Prerequisite: MAT 115.

MAT 118 Statistics: An Empirical Introduction (3) A course in empirical statistics for non-science majors. Topics include: random sampling, graphing, measures of central tendency and dispersion,
normal distribution, standard scores, confidence intervals, hypothesis testing, Student t distribution, two-way tables, probability, correlation and regression. Prerequisite: MAT 112 or MAT 113 or MAT 114 (or equivalent) or MAT 121 or BUS 102 or NUR 183 or NUR 230. Not open to Math/Science or Engineering Science majors or to anyone having earned credit in MAT 151 or BUS 219. A calculator with two-variable statistics capabilities is required.

MAT 121 Math for Elementary Teachers (4)
This course is the first of a two-semester sequence designed for the prospective B-2, 1-6, 5-8, and B-6 teacher. Students who plan to transfer to a four-year institution in Adolescence or Childhood Education should take this course and MAT 122. Students will develop an understanding of the mathematical curriculum recommended by the National Council of Teachers of Mathematics (NCTM) Standards. Topics include: sets, numeration systems, whole numbers, integers, rational numbers, real numbers, and number theory. A hands-on problem-solving technology-based approach will be emphasized throughout this course. This course fulfills the math requirement for only the following degrees: Human Services and Teacher Education, and the Liberal Arts and Sciences degrees in Adolescence Education, Childhood Education, General Studies, and Humanities and Social Sciences. Prerequisite: Beginning Algebra and successful completion of the MAT 121 Competency Test.

MAT 122 Math for Elementary Teachers II (4) This course is the second of a two-semester sequence designed for the prospective B-2, 1-6, 5-8, and B-6 teacher. Students who plan to transfer to a four-year institution in Adolescence or Childhood Education should take this course and MAT 121. Students will develop a comprehensive understanding of the mathematical curriculum as recommended by the National Council of Teachers of Mathematics (NCTM) standards. Topics will include: geometry, probability, statistics and the metric system. A hands-on, problem-solving, technology-based approach will be emphasized throughout the course. This course fulfills the math requirement for only the following degrees: Human Services and Teacher Education, and the Liberal Arts and Sciences degrees in Adolescence Education, Childhood Education, General Studies, and Humanities and Social Sciences. Prerequisite: MAT 121.

MAT 141 Algebra: A Functions Approach (3) Topics include polynomial and absolute value inequalities, functions and their inverses, operations on functions, graphs and transformations, exponential and logarithmic functions, right triangle trigonometry, law of sines and law of cosines, and binomial theorem. Graphing calculator use is required. This course does not fulfill the prerequisite for calculus. Prerequisite: Grade of C or better in Intermediate Algebra or equivalent. Not open to students with credit in MAT 143.

MAT 142 Trigonometric Functions (1) A functions approach to the study of trigonometry. The basic trigonometric functions of real numbers are discussed. Graphing calculator use is required. Prerequisite: Intermediate algebra, college algebra or equivalent.

MAT 143 Pre-Calculus With Trigonometry (4) This course is designed to provide the necessary foundation for a standard calculus course. Topics include absolute value and quadratic inequalities, functions and their equations, exponential and logarithmic functions and their applications, right triangle trigonometry, law of sines and law of cosines, trigonometric functions (circular) and their inverses, trigonometric identities and equations, addition and multiple angle formulas, and binomial theorem. Graphing calculator use is required. Prerequisite: Grade of C or better in intermediate algebra or college algebra or equivalent. Not open to anyone with previous credit in MAT 141 or 142.

MAT 151 Statistics I (4) Topics covering the descriptive and inferential aspects of statistics will include: frequency distribution, graphs, measures of central tendency and dispersion, probability, probability distributions, binomial and normal distributions, introduction to sampling theory, estimation theory, and hypothesis testing (mean, variance, proportions, etc.). Computer software and graphing calculator applications will be an integral component of this course. A graphing calculator with specific statistical capabilities will be required. Credit will not be given for both MAT 151 and BUS 219. Prerequisite: MAT 141 or MAT 143 or MAT 116 or equivalent.

MAT 152 Statistics II (4) A continuation of Statistics I to include the topics: two-sample analysis, linear and multiple regression, correlation, analysis of variance, non-parametric statistics and Chi-squared goodness of fit. Time series analysis and/or statistical process control as time permits. Computer software and graphing calculator applications will be an integral component of this course. A graphing calculator with specific statistical capabilities will be required. Credit will not be given for both MAT 152 and BUS 220. Prerequisite: MAT 151 or BUS 219 or equivalent.

MAT 161 Calculus I (4) A first course in calculus for students in mathematics, science, computer science, and engineering. Basic analytic geometry, functions, limits and continuity, derivatives of algebraic and trigonometric functions, chain rule, implicit differentiation, antiderivatives, definite integrals, Fundamental Theorem, applications of derivatives and integrals. Graphing calculator use is required. Prerequisite: Four years of college-preparatory mathematics (including trigonometry) or MAT 143 or Permission of Instructor.
MAT 162 Calculus II (4) A second course in calculus for students in mathematics, science, computer science, and engineering. Applications of integrals; derivatives and integrals of exponential, logarithmic, and inverse trigonometric functions; indeterminate forms and L'Hospital's rule; techniques of integration; improper integrals; numerical integration; infinite series; polar graphs. Graphing calculator use is required. Prerequisite: MAT 161.

MAT 241 Linear Algebra (3) This elective for Engineering, Computer Science, and Liberal Arts and Sciences: Mathematics and Science majors introduces students to the deductive style of higher-level mathematics courses. Topics include systems of linear equations, matrices, real vector spaces, subspaces, linear independence, basis, dimension, row and column space of a matrix, rank, linear transformations, kernel, range, matrix of a linear transformation, determinants, eigenvalues, and eigenvectors. Prerequisite: MAT 161 or equivalent.

MAT 251 Discrete Mathematics (3) Study of theoretical bases of set theory, logic, techniques of proof, number systems, functions, relations, algorithms, graph theory, counting, permutations, combinations, binomial co-efficients, recurrence relations, induction and recursion, and trees. Prerequisite: MAT 161 or Permission of Instructor.

MAT 263 Calculus III (4) The following topics are studied: vectors, vector functions, 3-dimensional analytic geometry, partial derivatives, total differentials, gradients, multiple integrals, line integrals, Green's theorem, Stokes's theorem. Prerequisite: MAT 162.

MAT 264 Differential Equations (4) A course designed primarily for Math/Science and Engineering majors. Topics include: definitions, first-order differential equations, linear equations of order two and higher, Laplace transforms, series solutions, systems of differential equations, numerical solution methods, modeling applications. Prerequisite: MAT 162 or equivalent.

The basic applications of jigs and fixtures. Two class hours and laboratory. Prerequisite: MET 151 or Permission of Instructor.

MET 153 Introduction to Modern Manufacturing (3) This course compares traditional manufacturing to modern manufacturing. Elements of Kaizen, Delivery, Accelerated Lead Time Reduction, and Work Place Organization, along with their applications are studied. Pull Systems, Cellular Manufacturing, Statistical Process Control, and Value Stream Mapping are also investigated. Each is studied as to how they relate to one another and the total process of modern manufacturing.

MET 161 Engineering Drawing I (3) This course is designed to prepare students with the necessary skills to interpret and construct engineering drawings. Lectures address such topics as drawing interpretation, orthographic projection systems, dimensioning, geometric dimensioning, and tolerancing, while laboratory sessions give the students practice in drawing creation. Two class hours and three laboratory hours per week.

MET 171 Manufacturing Processes (3) This course covers the principles and procedures of various manufacturing processes used in modern industries. Material selection and machine tools required for the processes are emphasized. Two class hours and a three-hour lab per week.

MET 174 HVAC Mechanical Theory and Applications (3) This course provides the fundamental concepts of the refrigerant side of residential and commercial HVAC systems. The refrigeration cycle, pressure, temperature, volumetric relationships, enthalpy, entropy, TH diagrams and superheating along with their application to HVAC systems are investigated. Types of condensers, refrigerants and metering devices are discussed as they apply to HVAC systems. Computer simulations are used throughout. This course is designed for technicians in the industry.

MET 251 Appl Strength/Materials (4) Provides a ready vehicle for a highly design-oriented approach to the basic concepts of mechanics of materials. Throughout the course emphasis is placed on the best practical applications of the theory. Students need not have studied a course in statics because statics is introduced directly into the course. The content of the course consists of: co-planar concurrent force systems, co-planar non-concurrent force systems, stresses in trusses and bridges, deformation and thermal stresses, direct shear, torsion shearing forces and bending moments in beams, centroids and moments of inertia, stress due to bending and vertical shearing force, combined stresses, deflection of beams, columns, pressure vessels, riveted connections and welding joints. Three class hours lecture, two class hours recitation, four class hours laboratory per week. Prerequisite: MAT 143 or Permission of Instructor.
**MET 252 Physical Metallurgy (3)** Provides a sound foundation of learning in the area of properties and microstructures of the important ferrous and nonferrous alloys. Also provides a firm foundation relative to the understanding of internal metallic structures of metals. The contents of the course include: metallic structures, the unit cell, atomic radius, planer density, effects of stress and temperature on simple metal structures, ferrous alloys (steel, superalloys, cast iron, ductile iron, malleable iron), phase diagrams, aluminum alloys, heat treatment of metals. Two class hours, three lab hours. Prerequisite: MAT 101 or Permission of Instructor.

**MET 254 Numerical Control Programming (3)** Designed to prepare students with the necessary skills to program NC and CNC controlled machine tools. Lectures address such topics as drawing interpretation, program formats, input media, sub-routines, canned cycles, and tooling, while the laboratory sessions give the students practice in programming learned techniques. Two class hours and three laboratory hours. Prerequisite: MET 261 or Permission of Instructor; co-requisite: MET 151.

**MET 261 Introduction to CAD (3)** An introductory course in CAD (Computer-Aided Drafting) utilizes state-of-the-art software. Topics to include the manipulation of the basic drawing commands to construct computer-detailed, multi-view drawings with printer/plotter hard copy output. Prerequisite or co-requisite: MET 161 or Permission of Instructor.

**MET 270 Solid Modeling (4)** A course designed to acquaint students with parametric computer-aided design software. Utilizing state-of-the-art software, students will be introduced to the manipulation of basic commands necessary to construct three-dimensional models.

**MET 291 CO: Cooperative Education (3)** Designed to provide work experience directly related to the student’s field of study. A learning contract, containing specific educational objectives related to the work experience and the student’s field of study, is developed by the student and the faculty co-op coordinator. Course requirements include a minimum of 180 hours of work in the student’s field of study; maintenance of a work journal to record hours worked and duties performed, and a final paper. This will allow the student to earn three credit hours. The student’s performance will be evaluated by the faculty co-op coordinator on the basis of meeting the objectives in the learning contract and satisfactory evaluations by the employer.

**Music**

**MUS 066 Beginning Music Reading I (1EQ)** An introductory course for Music Reading (MUS 101R). Course content includes instruction in the recognition/performance of rhythms, pitches, and notational systems.

**MUS 067 Beginning Music Reading II (1EQ)** A continuation of MUS 066 which includes instruction in the recognition/performance of rhythms, pitches and meters. Prerequisite: Permission of Instructor.

**MUS 100A Convocation (1)** This class is designed to provide professional concerts to help build strong professional music attitudes concerning repertoire and performance, to provide performing opportunities for soloists or groups presenting professional level concerts, and to raise the level of professional musical consciousness for many performing mediums and styles.

**MUS 100B Convocation (1)**

**MUS 100C Convocation (1)**

**MUS 100D Convocation (1)**

**MUS 101D Diction for Singers (3)** A basic study of French, German and Italian diction with practical application to singing.

**MUS 101K Keyboard Harmony (1)** Explores basic concepts of tonality/modality; primary triads and their inversions, modes and modal inflections; secondary triads; standard chord progressions involving these elements; and chord nomenclature.

**MUS 101R Music Reading (1)** Music Reading (solfegetto) is a four-semester course designed to aid the Music student in aural recognition of pitch and rhythm by sight and develop the ability to sing back or clap back the same. Sight-singing exercises are of increasing complexity. Recognition of intervals and chords by sight and sound and dictation study (the ability to indicate prescribed pitches and/or rhythmical patterns on music staff paper) are required. Prerequisite for each semester is successful completion of the prior semester.

**MUS 101T Music Theory (3)** Covers notation, scales (major, minor and chromatic), tempo designations, intervals, triads, phase structure and cadences, modes and beginning study of four-part harmony and figure bass. Ear training in all areas is included. Prerequisite: Music Theory test and Permission of Instructor.

**MUS 102K Keyboard Harmony (1)** A continuation of MUS 101K using various musical excerpts embodying first-semester materials. Extensive work is done in the minor mode. There is continued study of chord nomenclature, and non-harmonic tones are introduced. Prerequisite: MUS 101K.
MUS 102R Music Reading (1) Music Reading (solfeggio) is a four-semester course designed to aid the Music student in aural recognition of pitch and rhythm by sight and develop the ability to sing back or clap back the same. Sight-singing exercises are of increasing complexity. Recognition of intervals and chords by sight and sound and dictation study (the ability to indicate prescribed pitches and/or rhythmic patterns on music staff paper) are required. Prerequisite for each semester is successful completion of the prior semester.

MUS 102T Music Theory (3) Four-part harmony and figured bass studies are continued; counterpoint, instrumental transpositions and non-harmonic tones are introduced. Ear training is continued. Prerequisite: MUS 101T.

MUS 103 Music Appreciation I (3) An introduction to the basic elements of music. Areas explored include the symphony orchestra and other performing media. The course investigates styles and techniques of the 18th and 19th centuries through the use of recordings and visual aids with the aim of more complete understanding and enjoyment of the art. Designed as an elective for liberal arts students not majoring in music.

MUS 104 Music Appreciation II (3) An examination of the music of today. Topics include the music of other cultures, various types of popular music, music in relation to other media (films, shows, electronics, etc.), and 20th century orchestral/wind ensemble usage. Prerequisite: MUS 103 or MUS 104.

MUS 105 Survey of Western Music History I (3) A survey of music in western civilization from the Gregorian chant through the baroque period. Not open to non-music majors.

MUS 106 Survey of Western Music History II (3) A continuation of MUS 105 from Classic through 20th Century. Not open to non-music majors.

MUS 107 Applied Music Instruction (2) Private study for each student in voice, piano, electric bass and drum set or an orchestral or band instrument depending upon availability of faculty. Department audition and permission card required. Additional fee for private lessons.

MUS 108 Applied Music Instruction (2) Major private study for each student in voice, piano, guitar, electric bass and drum set or an orchestral or band instrument depending upon availability of faculty. Department audition and permission card required. Additional fee for private lessons.

MUS 107A Drum Set Lessons (2)
MUS 107B Flute Lessons (2)
MUS 107C Oboe Lessons (2)
MUS 107D Clarinet Lessons (2)
MUS 107E Bassoon Lessons (2)
MUS 107F Saxophone Lessons (2)
MUS 107G Trumpet/Cornet Lessons (2)
MUS 107H French Horn Lessons (2)
MUS 107I Trombone Lessons (2)
MUS 107J Euphonium/Baritone Lessons (2)
MUS 107K Tuba Lessons (2)
MUS 107M Piano Lessons (2)
MUS 107N Electric Bass Lessons (2)
MUS 107P Percussion Lessons (2)
MUS 107Q Harp Lessons (2)
MUS 107R Guitar Lessons (2)
MUS 107S Guitar Lessons (2)
MUS 107T Voice Lessons (2)
MUS 107U Violin Lessons (2)
MUS 107V Viola Lessons (2)
MUS 107W Cello Lessons (2)
MUS 107Y Contrabass Lessons (2)
MUS 107Z Organ Lessons (2)
MUS 108A Drum Set Lessons (2)
MUS 108B Flute Lessons (2)
MUS 108C Oboe Lessons (2)
MUS 108D Clarinet Lessons (2)
MUS 108E Bassoon Lessons (2)
MUS 108F Saxophone Lessons (2)
MUS 108G Trumpet/Cornet Lessons (2)
MUS 108H French Horn Lessons (2)
MUS 108I Trombone Lessons (2)
MUS 108J Euphonium/Baritone Lessons (2)
MUS 108K Tuba Lessons (2)
MUS 108L Piano Lessons (2)
MUS 108M Harp Lessons (2)
MUS 108N Guitar Lessons (2)
MUS 108P Percussion Lessons (2)
MUS 108Q Electric Bass Lessons (2)
MUS 108R Harp Lessons (2)
MUS 108S Guitar Lessons (2)
MUS 108T Voice Lessons (2)
MUS 108U Violin Lessons (2)
MUS 108V Cello Lessons (2)
MUS 108W Viola Lessons (2)
MUS 108X Contrabass Lessons (2)
MUS 108Y Organ Lessons (2)
MUS 108Z Drum Set Lessons (2)
MUS 109A Flute Lessons (2)
MUS 109B Guitar Lessons (2)
MUS 109C Oboe Lessons (2)
MUS 109D Clarinet Lessons (2)
MUS 109E Bassoon Lessons (2)
MUS 109F Saxophone Lessons (2)
MUS 109G Trumpet/Cornet Lessons (2)
MUS 109H French Horn Lessons (2)
MUS 109J Trombone Lessons (2)
MUS 109K Euphonium/Baritone Lessons (2)
MUS 109M Tuba Lessons (2)
MUS 109N Piano Lessons (2)
MUS 109P Percussion Lessons (2)
MUS 109Q Electric Bass Lessons (2)
MUS 109S Harp Lessons (2)
MUS 109T Guitar Lessons (2)
MUS 109U Voice Lessons (2)
MUS 109V Violin Lessons (2)
MUS 109W Viola Lessons (2)
MUS 109X Cello Lessons (2)
MUS 109Y Contrabass Lessons (2)
MUS 109Z Organ Lessons (2)
MUS 110-MUS 112 Applied Music Instruction (2) Private study for each student in voice, piano, guitar, electric bass and drum set or an orchestral or band instrument depending upon availability of faculty. Department audition and permission card required. Additional fee for private lessons.
MUS 110A Drum Set Lessons (2)
MUS 110B Flute Lessons (2)
MUS 110C Oboe Lessons (2)
MUS 110D Clarinet Lessons (2)
MUS 110E Bassoon Lessons (2)
MUS 110F Saxophone Lessons (2)
MUS 110G Trumpet/Cornet Lessons (2)
MUS 110H French Horn Lessons (2)
MUS 110J Trombone Lessons (2)
MUS 110K Euphonium/Baritone Lessons (2)
MUS 110M Tuba Lessons (2)
MUS 110N Piano Lessons (2)
MUS 110P Percussion Lessons (2)
MUS 110Q Electric Bass Lessons (2)
MUS 110S Applied Harp Lessons (2)
MUS 110T Guitar Lessons (2)
MUS 110U Voice Lessons (2)
MUS 110V Violin Lessons (2)
MUS 110W Viola Lessons (2)
MUS 110X Cello Lessons (2)
MUS 110Y Contrabass Lessons (2)
MUS 110Z Organ Lessons (2)
MUS 111A Drum Set Lessons (2)
MUS 111B Flute Lessons (2)
MUS 111C Oboe Lessons (2)
MUS 111D Clarinet Lessons (2)
MUS 111E Bassoon Lessons (2)
MUS 111F Saxophone Lessons (2)
MUS 111G Trumpet/Cornet Lessons (2)
MUS 111H French Horn Lessons (2)
MUS 111J Trombone Lessons (2)
MUS 111K Euphonium/Baritone Lessons (2)
MUS 111M Tuba Lessons (2)
MUS 111N Piano Lessons (2)
MUS 111P Percussion Lessons (2)
MUS 111Q Electric Bass Lessons (2)
MUS 111S Applied Harp (2)
MUS 111T Guitar Lessons (2)
MUS 111U Voice Lessons (2)
MUS 111V Violin Lessons (2)
MUS 111W Viola Lessons (2)
MUS 111X Cello Lessons (2)
MUS 111Y Contrabass Lessons (2)
MUS 111Z Organ Lessons (2)
MUS 112A Drum Set Lessons (2)
MUS 112B Flute Lessons (2)
MUS 112C Oboe Lessons (2)
MUS 112D Clarinet Lessons (2)
MUS 112E Bassoon Lessons (2)
MUS 112F Saxophone Lessons (2)
MUS 112G Trumpet/Cornet Lessons (2)
MUS 112H French Horn Lessons (2)
MUS 112J Trombone Lessons (2)
MUS 112K Euphonium/Baritone Lessons (2)
MUS 112M Tuba Lessons (2)
MUS 112N Piano Lessons (2)
MUS 112P Percussion Lessons (2)
MUS 112Q Electric Bass Lessons (2)
MUS 112S Applied Harp Lessons (2)
MUS 112T Guitar Lessons (2)
MUS 112U Voice Lessons (2)
MUS 112V Violin Lessons (2)
MUS 112W Viola Lessons (2)
MUS 112X Cello Lessons (2)
MUS 112Y Contrabass Lessons (2)
MUS 112Z Organ Lessons (2)
MUS 113 Applied Piano Minor (1) Non-piano majors must study piano for four semesters or until able to pass a proficiency examination.
MUS 113A Applied Piano Minor Class (1) A beginning course designed for non-music majors to teach basic technique/reading on piano in an electric piano lab.
MUS 114 Applied Piano Minor (1) Non-piano majors must study piano for four semesters or until able to pass a proficiency examination.

MUS 115 Applied Piano Minor (1) Non-piano majors must study piano for four semesters or until able to pass a proficiency examination.

MUS 116 Applied Piano Minor (1) Non-piano majors must study piano for four semesters or until able to pass a proficiency examination.

MUS 121-MUS 122 Repertory (1) An intensive study of the history and literature available and/or the performance methods for each of the instrumental or vocal disciplines for which the course is offered. Four semesters are required for the A.A.S. degree in music.

MUS 121A Drum Set Repertory (1)
MUS 121B Flute Repertory (1)
MUS 121C Oboe Repertory (1)
MUS 121D Clarinet Repertory (1)
MUS 121E Bassoon Repertory (1)
MUS 121F Saxophone Repertory (1)
MUS 121G Trumpet Repertory-Freshman (1)
MUS 121H French Horn Repertory (1)
MUS 121J Low Brass Repertory (1)
MUS 121M Tuba Repertory (1)
MUS 121N Piano Repertory (1)
MUS 121P Percussion Repertory (1)
MUS 121Q Electric Bass Repertory (1)
MUS 121T Guitar Repertory (1)
MUS 121U Voice Repertory (1)
MUS 121V Violin/Viola Repertory (1)
MUS 121Y Cello/String Bass Repertory (1)
MUS 121Z Organ Repertory (1)
MUS 122B Flute Repertory (1)
MUS 122C Oboe Repertory (1)
MUS 122D Clarinet Repertory (1)
MUS 122E Bassoon Repertory (1)
MUS 122F Saxophone Repertory (1)
MUS 122G Trumpet Repertory (1)
MUS 122H French Horn Repertory (1)
MUS 122J Low Brass Repertory (1)
MUS 122M Tuba Repertory (1)
MUS 122N Piano Repertory (1)
MUS 122P Percussion Repertory (1)
MUS 122Q Electric Bass Repertory (1)
MUS 122T Guitar Repertory (1)
MUS 122U Voice Repertory (1)
MUS 122Y Cello/String Bass Repertory (1)

MUS 122Z Organ Repertory (1)
MUS 151-MUS 152 Ensemble (0.5) Provides suitable repertoire for study and performance for the particular ensemble. Provides the vehicles for the successful study and performance of that repertoire. Supplies sufficient performing opportunities whether departmental, college-wide or in the community. Illustrates varied teaching techniques for that particular type of ensemble.

MUS 151B Flute Choir (0.5)
MUS 151C String Ensemble (0.5)
MUS 151D Clarinet Choir (0.5)
MUS 151E Wind Ensemble (0.5)
MUS 151F Saxophone Ensemble (0.5)
MUS 151G Latin Ensemble (0.5)
MUS 151H Horn Ensemble (0.5)
MUS 151J Big Band Jazz (0.5)
MUS 151L Woodwind Quintet (0.5)
MUS 151P Percussion Ensemble (0.5)
MUS 151R Chamber Singers (0.5)
MUS 151T Guitar Ensemble (0.5)
MUS 151V OCC Singers (0.5)
MUS 151X Improvisation (0.5)
MUS 151Y Brass Quintet (0.5)
MUS 152B Flute Choir (0.5)
MUS 152C String Ensemble (0.5)
MUS 152D Clarinet Choir (0.5)
MUS 152E Wind Ensemble (0.5)
MUS 152F Saxophone Ensemble (0.5)
MUS 152G Latin Ensemble (0.5)
MUS 152H French Horn Repertory (0.5)
MUS 152J Big Band Jazz (0.5)
MUS 152L Woodwind Quintet (0.5)
MUS 152P Percussion Ensemble (0.5)
MUS 152R Chamber Singers (0.5)
MUS 152S Accompanying (0.5)
MUS 152T Guitar Ensemble (0.5)
MUS 152V OCC Singers (0.5)
MUS 152X Improvisation (0.5)
MUS 152Y Brass Quintet (0.5)

MUS 160 Introduction to Music Theory I (3) A course in basic music theory, including notation, scales, intervals, rhythmic elements, ear training, chords and modes. Designed for the non-music major and/or prospective music major, as determined by audition process. Does not fulfill Music curriculum requirements.

MUS 161 Introduction Music Theory II (3) Continues studies of scales, intervals, key signatures, ear training and chord studies. Minor scales
and harmonization of melodies are introduced. Prerequisite: MUS 160 or Permission of Instructor. Not applicable to Music curriculum requirements.

MUS 162P Hand Drumming (2) Class instruction for the beginner and the hand drummer needing a refresher course in the fundamentals of hand drumming. Major emphasis given to technique and classic rhythms.

MUS 162T Guitar Class I (2) Class instruction for the beginning guitarist. Both pick and finger-style (classical) guitar are taught simultaneously. A primary goal will be to develop sight reading skills.

MUS 162U Voice Class I (2) Class instruction for the beginner and the vocalist needing a refresher course in voice fundamentals. Major emphasis given to breathing exercises and vocalization technique. Classical and folk singing in groups and individual settings.

MUS 162X The Art of Popular Singing (2) Class instruction for the vocalist, from beginning to advanced, focusing on jazz and pop performance techniques that comprise the skills of what is traditionally called popular singing. This is not a course in voice fundamentals (MUS 162U), but rather a class-oriented setting designed to enhance the vocalist’s abilities specifically in the jazz/pop idiom.

MUS 166 Introduction to Ethnic Music (3) A study of African music and its influence on other cultures, including Middle Eastern, South American, Caribbean, and North American/European music.

MUS 168 Drum Set I (1) Basic rhythmic reading skills taught in a class situation. Additional material covered includes basic hand technique, coordination exercises, chart reading. Playing time on drum set dependent on class size/background of those registered. No prerequisite, but some musical background is preferable.

MUS 182 Music As a Business (3) The purpose of this course is to study the power structure and operation of the music business from large companies to retail stores, and to understand the way money is being distributed in a multiplicity of jobs from individual artists to company presidents.

MUS 185 Piano Literature of the 18th Century (1) A study of the historical development of the piano and its literature traced through the most important works written for the harpsichord, clavechord, forte-piano, and piano in the 18th century. Will emphasize aural differentiation among the instruments and the styles of J.S. Bach, Handel, D. Scarlatti, Bach’s sons, Haydn, Mozart, Clementi, and the young Beethoven. Prerequisite: MUS piano major.

MUS 186 Piano Literature of the Early 19th Century (1) A study of the historical development of piano literature traced through the most important works written between 1800 and 1850. Will emphasize aural differentiation of the styles of Schubert, Beethoven, Chopin, Schumann, Weber, Mendelssohn and the young Liszt. Prerequisite: MUS piano major.

MUS 187 Piano Literature of the Late 19th Century (1) A study of the historical development of piano literature traced through the most important works written between 1850 and 1900. Will emphasize aural differentiation of the styles of Brahms, the mature Liszt, Grieg, Franck, Albeniz, Reger, and the young Busoni. Prerequisite: MUS piano major.

MUS 188 Piano Literature of the 20th Century (1) A study of the historical development of piano literature traced through the most important works written during the 20th century. Will emphasize aural differentiation of the styles of Debussy, Ravel, Rachmaninoff, Prokofiev, Bartok, Stravinsky, Busoni, Schoenberg, Boulez, Stockhausen. Prerequisite: MUS piano major.

MUS 190 Introduction to Music Software With MIDI (3) A study of MIDI applications using hardware and software as a tool to improve musicianship. The course will utilize the new technology to enhance and reinforce basic classroom concepts. Emphasis will be placed on hands-on involvement using software programs for Music Theory, Music History, and Jazz Improvisation.

MUS 201K Keyboard Harmony (1) Explores secondary dominants, diminished seventh chords, augmented sixth chords, chord substitution, and chord nomenclature; pieces embodying these elements are studied. Prerequisite: MUS 101K, MUS 102K or Permission of Instructor.

MUS 201R Music Reading (1) Music Reading (solfeggio) is a four-semester course designed to aid the Music student in aural recognition of pitch and rhythm by sight and develop the ability to sing back or clap back the same. Sight-singing exercises are of increasing complexity. Recognition of intervals and chords by sight and sound and dictation study (the ability to indicate prescribed pitches and/or rhythmical patterns on music staff paper) are required. Prerequisite for each semester is successful completion of the prior semester.

MUS 201T Music Theory (3) Diatonic chords and progression are reviewed. Seventh chords are analyzed along with non-dominant seventh chords and their progressions. Altered non-harmonic tones and secondary dominants are studied along with modulation to closely related keys and harmonization of melodies. Four-part diction is introduced. Prerequisite: MUS 101T, MUS 102T or Permission of Instructor. Honors: Prerequisite: 3.5 G.P.A. or Permission of Instructor.

MUS 202K Keyboard Harmony II (1) Playing styles are discussed, more chord substitutions are introduced, playing from lead sheets and harmonizing unmarked melodies are explained, and compound and polypotential chords are defined. Prerequisite: MUS 101K, MUS 102K, MUS 201K or Permission of Instructor.
MUS 202R Music Reading (1) Music Reading (solfeggio) is a four-semester course designed to aid the Music student in aural recognition of pitch and rhythm by sight and develop the ability to sing back or clap back the same. Sight-singing exercises are of increasing complexity. Recognition of intervals and chords by sight and sound and dictation study (the ability to indicate prescribed pitches and/or rhythmical patterns on music staff paper) are required. Prerequisite for each semester is successful completion of the prior semester.

MUS 202T Music Theory (3) Construction and analysis of all borrowed chords, Neapolitan sixth, and other altered chords; chromatic medians, and modulation to foreign keys are studied. Ninth, eleventh, and thirteenth chords are constructed and analyzed. Four-part diction is continued. Prerequisite: MUS 101T, MUS 102T, MUS 201T, or Permission of Instructor.

MUS 203 Introduction to Composition (3) This is a course in beginning music composition. Aesthetic concepts and specific detailed theoretical concepts and techniques, particularly of the 20th century, will be covered as will introductory 18th century counterpart. Students must have one year of basic music theory and be able to read music to take this course. Prerequisites: MUS 102T and MUS 106 or Permission of Instructor.

MUS 211-MUS 212 Music Instruction (2) Private study for each student in voice, piano, guitar, electric bass and drum set or an orchestral or band instrument depending upon availability of faculty. Department audition and permission card required. Additional fee for private lessons.

MUS 211A Drum Set Lessons (2)
MUS 211B Flute Lessons (2)
MUS 211C Oboe Lessons (2)
MUS 211D Clarinet Lessons (2)
MUS 211E Bassoon Lessons (2)
MUS 211F Saxophone Lessons (2)
MUS 211G Trumpet/Cornet Lessons (2)
MUS 211H French Horn Lessons (2)
MUS 211J Trombone Lessons (2)
MUS 211K Euphonium/Baritone Lessons (2)
MUS 211M Tuba Lessons (2)
MUS 211N Piano Lessons (2)
MUS 211P Percussion Lessons (2)
MUS 211Q Electric Bass Lessons (2)
MUS 211S Applied Harp (2)
MUS 211T Guitar Lessons (2)
MUS 211U Voice Lessons (2)
MUS 211V Violin Lessons (2)
MUS 211W Viola Lessons (2)
MUS 211X Cello Lessons (2)
MUS 211Y Contrabass Lessons (2)
MUS 211Z Organ Lessons (2)
MUS 212A Drum Set Lessons (2)
MUS 212B Flute Lessons (2)
MUS 212C Oboe Lessons (2)
MUS 212D Clarinet Lessons (2)
MUS 212E Bassoon Lessons (2)
MUS 212F Saxophone Lessons (2)
MUS 212G Trumpet/Cornet Lessons (2)
MUS 212H French Horn Lessons (2)
MUS 212J Trombone Lessons (2)
MUS 212K Euphonium/Baritone Lessons (2)
MUS 212M Tuba Lessons (2)
MUS 212N Piano Lessons (2)
MUS 212P Percussion Lessons (2)
MUS 212Q Electric Bass Lessons (2)
MUS 212S Applied Harp Lessons (2)
MUS 212T Guitar Lessons (2)
MUS 212U Voice Lessons (2)
MUS 212V Violin Lessons (2)
MUS 212W Viola Lessons (2)
MUS 212X Cello Lessons (2)
MUS 212Y Contrabass Lessons (2)
MUS 212Z Organ Lessons (2)
MUS 213-MUS 218 Applied Music Instruction (2) Private study in voice, piano, guitar, organ, electric bass drum set or an orchestral or band instrument - brass, woodwind, strings, percussion. Department audition and permission card required. Additional fee for private lessons.

MUS 213A Drum Set Lessons (2)
MUS 213B Flute Lessons (2)
MUS 213C Oboe Lessons (2)
MUS 213D Clarinet Lessons (2)
MUS 213E Bassoon Lessons (2)
MUS 213F Saxophone Lessons (2)
MUS 213G Trumpet/Cornet Lessons (2)
MUS 213H French Horn Lessons (2)
MUS 213J Trombone Lessons (2)
MUS 213K Euphonium/Baritone Lessons (2)
MUS 213M Tuba Lessons (2)
MUS 213N Piano Lessons (2)
MUS 213P Percussion Lessons (2)
MUS 213Q Electric Bass Lessons (2)
MUS 213T Guitar Lessons (2)
MUS 213U Voice Lessons (2)
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<td>MUS 215W</td>
<td>Viola Lessons</td>
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<td>MUS 215X</td>
<td>Cello Lessons</td>
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<td>MUS 215Z</td>
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<td>MUS 216Z</td>
<td>Organ Lessons</td>
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<td>Flute Repertory</td>
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MUS 222N Piano Repertory-Sophomore (1)
MUS 222P Percussion Repertory (1)
MUS 222Q Electric Bass Repertory (1)
MUS 222T Guitar Repertory (1)
MUS 222U Voice Repertory (1)
MUS 222Y String Repertory (1)
MUS 222Z Organ Repertory (1)
MUS 223B Soph Flute Repertory (1)
MUS 223H Soph French Horn Rep (1)
MUS 223U Soph Voice Repertory (1)
MUS 224B Sophomore Flute Repertory (1)
MUS 224U Soph Voice Repertory (1)
MUS 251-MUS 254 Ensemble (0.5) Provides suitable repertoire for study and performance for the particular ensemble. Provides the vehicles for the successful study and performance of that repertoire. Supplies sufficient performing opportunities whether departmental, college-wide or in the community. Illustrates varied teaching techniques for that particular type of ensemble.
MUS 251B Flute Choir (0.5)
MUS 251C String Ensemble (0.5)
MUS 251D Clarinet Choir (0.5)
MUS 251E Wind Ensemble (0.5)
MUS 251F Saxophone Ensemble (0.5)
MUS 251G Latin Ensemble (0.5)
MUS 251H Horn Ensemble (0.5)
MUS 251J Big Band Jazz (0.5)
MUS 251L Woodwind Quintet (0.5)
MUS 251P Percussion Ensemble (0.5)
MUS 251R Chamber Singers (0.5)
MUS 251S Accompanying (0.5)
MUS 251T Guitar Ensemble (0.5)
MUS 251V OCC Singers (0.5)
MUS 251X Improvisation (0.5)
MUS 251Y Brass Quintet (0.5)
MUS 252B Flute Choir (0.5)
MUS 252C String Ensemble (0.5)
MUS 252D Clarinet Choir (0.5)
MUS 252E Wind Ensemble (0.5)
MUS 252F Saxophone Ensemble (0.5)
MUS 252G Latin Ensemble (0.5)
MUS 252H Horn Ensemble (0.5)
MUS 252J Big Band Jazz (0.5)
MUS 252L Woodwind Quintet (0.5)
MUS 252P Percussion Ensemble (0.5)
MUS 252R Chamber Singers (0.5)
MUS 252S Accompanying (0.5)
MUS 252T Guitar Ensemble (0.5)
MUS 252V OCC Singers (0.5)
MUS 252X Improvisation (0.5)
MUS 252Y Brass Quintet (0.5)
MUS 253B Flute Choir (0.5)
MUS 254B Flute Choir (0.5)

Nursing

FOR MORE INFORMATION, CONTACT THE NURSING DEPARTMENT IN FERRANTE HALL, ROOM F104, (315) 498-2360.

NUR 180 Nursing Process and Concepts I (1)
Introduces the concepts essential for applying Level 1 human needs theory in the clinical setting. Concepts stressed are: an effective approach to learning; the role of the nurse within the health care system; problem solving/introduction to the Nursing Process; and introduction to human needs theory. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity for the theory and procedure components. Demonstration of the application of these concepts in the clinical setting is a requirement of NUR 180. The final grade in NUR 180 is dependent on successful completion of all Level 1 requirements. Prerequisite: matriculation in Nursing.

NUR 181 Activity and Rest Needs I (1)
In this course students apply the nursing process in the human needs area of activity and rest. Students are introduced to the client's need of alternate periods of activity and rest. Students learn principles of body alignment/mechanics and safe patient handling. Students also learn to assess activity and rest needs and to provide for these needs by assisting clients to move safely and effectively; by performing range of motion exercises and effective positioning; by providing hygiene such as oral care, skin care, bathing, and bed making; and by implementing nursing strategies to promote sleep. Some factors of growth and development are considered. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Co-requisite: NUR 180.

NUR 182 Oxygenation Needs I (1)
The student will use the nursing process in the human needs area of basic oxygenation. This course introduces students to the need for adequate oxygen supply to maintain cellular metabolism, and to the interrelationship of respiratory and cardiovascular function in maintaining oxygen supply. Students first learn to assess oxygenation status. They then can plan and implement measures learned to promote respiration/ventilation and circulation. Lastly, students learn to evaluate their effectiveness. Measures learned to assess oxygenation status include assessment of blood pressure, temperature, peripheral pulses, respiration, and oxygenation saturation. Measures
learned to promote respiration/ventilation include use of aerosol medications, oxygenation administration, non-invasive ventilation aids, and breathing exercises. Measures learned to promote circulation are through proper application of antiembolic and sequential stockings, and exercise. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Co-requisite: NUR 180.

NUR 183 Safety and Security Needs I (1) In this course, students apply the nursing process in the human needs area of safety and security. Students are introduced to potential environmental and biologic threats to the well-being of the individual such as tissue injury and infection. Nursing assessments and interventions to minimize threats, provide a safe environment, and promote healing, such as medical asepsis, isolation, surgical asepsis, wound care, heat and cold therapy, and a safe process to administer medications, are included. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Co-requisite: NUR 180.

NUR 184 Nutrition and Elimination Needs I (1) This Level 1 nursing course assists students in learning basic nursing care. The first unit includes assessments and skills such as: monitoring intake and output, and client care during intravenous therapy. Readings, videos, and laboratory small groups are used to help the student learn to assess and promote their client's fluid and electrolyte balance. In unit two, the focus switches to normal adult nutritional needs, including nasogastric tubes used for feedings and stomach decompression. Areas of special concern to nurses are highlighted, such as assessing client readiness for diet progression. Units three and four focus on basic assessments and measures to promote the hospitalized person's elimination. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Co-requisite: NUR 180.

NUR 185 Psychosocial Needs I: Interviewing (1) Students apply the nursing process concepts of assessment, planning, intervention, and evaluation in the area of psychosocial needs. They learn open-ended data gathering and relationship development techniques that meet clients' psychosocial needs at the same time the students are meeting their own professional need of compiling a broad, accurate database. Students explore the nature and goals of the professional relationship and learn communication techniques to use in each phase to ensure that care is client-centered. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Co-requisite: NUR 180.

NUR 191 Introduction to Nursing Process (2) This course provides an opportunity for the student to master basic nursing skills in a simulated clinical setting under the guidance of the instructor in preparation for nursing care in the hospital setting. The student will begin to utilize the steps of the nursing process (assessing, planning, implementing, and evaluating) in conjunction with these nursing skills. The student will consider cost effectiveness in utilizing lab materials, and learn to use channels of communication. The student will use appropriate terminology; apply theory in performance of skills, work in groups, and use self-evaluation. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: Matriculation in Nursing; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 180.

NUR 192 Introductory Nursing Process Clinical (2) This course provides an opportunity for the student to begin to apply theory and skills mastered to date while familiarity with the hospital environment, equipment, and personnel is developed. The student functions in collaboration with the instructor to plan for the day of care for the hospitalized adult. The student depends on the instructor for guidance with interactions with members of the health care team and seeks assistance when appropriate. The student depends on the instructor for guidance to maintain standards, develop relationships, and assume accountability for learning and self-evaluation. The student utilizes the steps of the nursing process to perform basic assessments, identify problems, plan on an hourly basis, and implement and evaluate care for the day. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 191; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 180.

NUR 193 Extended Nursing Process Clinical (2) This course provides an opportunity for the student to have additional experience in the hospital setting to achieve clinical proficiency at Level 1. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 192; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 180.
NUR 194 Extended Nursing Process Clinical
(2) This course provides an opportunity for the student to have additional experience in the hospital setting to achieve clinical proficiency at Level 1. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 192; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 180.

NUR 199 Elective Nursing Process Clinical I (2) This course provides opportunities for the student to have clinical experiences to work on personal objectives and/or those beyond the scope of basic preparation. These experiences will allow the student to be supervised in a clinical setting in order to gain additional experiential knowledge, enhance skills learned, and/or validate maintenance of skills. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: Permission of Instructor; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance.

NUR 220 Nursing Process and Concepts II (1) NUR 220 introduces the concepts essential for applying Level 2 human needs theory in the clinical setting. The five phases of the nursing process are studied individually, cultural and spiritual differences are explored, and basic concepts of growth and development are studied. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity for the theory and procedure components. Demonstration of the application of these concepts in the clinical setting is a requirement of NUR 220. The final grade in NUR 220 is dependent on successful completion of all Level 2 requirements. Prerequisite: NUR 180.

NUR 222 Oxygenation Needs II (1) This course builds on theory and skills learned in NUR 182. It prepares students to develop and utilize the nursing process during respiratory and circulatory physical assessment. Assessments of normal and abnormal heart and lung sounds are taught, as well as basic electrocardiogram identification. Select oxygenation crises are included for nursing assessments and interventions. Advanced respiratory and circulatory care modalities are also included. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 180; co-requisite: NUR 220.

NUR 223 Safety and Security Needs II (1) This course covers various aspects of nursing care and utilization of the nursing process related to a person's surgical experience, persons experiencing pain, and persons with cancer. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 180; co-requisite: NUR 220.

NUR 224 Nutrition and Elimination Needs II (1) This Level 2 nursing course provides information to assist students in applying the nursing process to address a client’s nutrition and elimination needs. Information on defining the client’s problem as well as additional skills for promoting nutrition and elimination are also included. Caring for clients with infusion pumps and insertion of indwelling urinary catheters are skills to be demonstrated. Assessing effectiveness of treatment is considered. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 180; co-requisite: NUR 220.

NUR 225 Psychosocial Needs II: Therapeutic Communication (1) Students apply the nursing process in the area of psychosocial needs by identifying clients’ direct and indirect expressions of feelings and by using supportive communication skills to respond to them. Students also apply these supportive communication skills to assessing and intervening in difficult situations, with difficult clients, and in interactions with other health care workers. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 180; co-requisite: NUR 220.

NUR 230 Introduction to Nursing Process for Advanced Placement Students (2) This course provides an opportunity for the student with prior nursing credits to consolidate and refine previously learned theory and skills, while emphasizing the underlying rationale and principles. Under the guidance of the instructor in a simulated clinical setting, the principles of the nursing process are applied. Opportunities are provided to reduce the stress of re-entering school, to positively reinforce gained knowledge, and to form support groups by focusing on the skills needed for interpersonal relationships. Appropriate clinical placement will be determined at the end of this experience. Students will spend a total of 56 hours in eight lab sessions in introductory clinical practice activities; in addition, students will be expected to spend substantial time preparing for each session. Prerequisites: matriculation in Nursing and Permission of Instructor; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 180, NUR 220.
NUR 231 Nursing Process Clinical I (2) This course provides an opportunity for the student to apply theory and skills mastered to date. The student functions in collaboration with the instructor to plan for the day of care for hospitalized adults, recognizing diverse characteristics. The student depends on the instructor for guidance with interactions with members of the health care team and seeks assistance when appropriate. The student depends on the instructor for guidance to maintain standards, develop relationships, and assume accountability for learning and self-evaluation. The student utilizes the nursing process to perform ongoing assessments; identify problems; select nursing diagnoses; and plan, implement and evaluate care for the day. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 180; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 220.

NUR 232 Nursing Process Clinical II (2) This course provides an opportunity for the student to apply theory and skills mastered to date. The student functions in collaboration with the instructor and members of the nursing team to plan for the day of care for hospitalized adults, recognizing diverse characteristics. The student functions in collaboration with the instructor, acting as a client advocate, exercising beginning independence with interpersonal interactions, and seeking assistance from the instructor and other members of the nursing team when appropriate. The student exercises beginning independence to maintain standards, develop relationships, and assume accountability for learning and self-evaluation. The student utilizes the nursing process to perform ongoing assessments; identify problems; select nursing diagnoses; and plan, implement and evaluate care for the day. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 230 or NUR 231; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 220.

NUR 233 Extended Nursing Process Clinical II (2) This course provides the opportunity for the student to have additional experience in the medical-surgical hospital setting to achieve clinical proficiency at Level 2. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 232; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 220.

NUR 234 Extended Nursing Process Clinical II (2) This course provides the opportunity for the student to have additional experience in the medical-surgical hospital setting to achieve clinical proficiency at Level 2. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 232; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 220.

NUR 237 Extended Nursing Process Clinical II (2) This course provides the opportunity for the student to have additional experience in the medical-surgical hospital setting to achieve clinical proficiency at Level 2. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 232; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 220.

NUR 238 Extended Nursing Process Clinical II (2) This course provides the opportunity for the student to have additional experience in the medical-surgical hospital setting to achieve clinical proficiency at Level 2. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 232; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 220.

NUR 239 Elective Nursing Process Clinical II (2) This course provides opportunities for the student to have clinical experiences to work on personal objectives and/or those beyond the scope of basic preparation. These experiences will allow the student to be supervised in the clinical setting in order to gain additional experiential knowledge, enhance skills learned, and/or validate maintenance of skills. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite:Permission of Instructor; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance.
NUR 240 Nursing Process and Concepts III (1) NUR 240 introduces the concepts essential for applying Level 3 theory in the clinical setting. The student will focus on the needs of clients and their families during the current events of hospitalization and in anticipation of future needs. Skills in documenting the nursing process via obtaining a health care history, initiating the nursing care plan or referral, and completing a discharge/transfer summary are introduced. The concept of loss, most significantly the loss of health and life, is examined. Several bio-ethical issues surrounding dying and death are explored. Skills are included to enable the student to assist the client and family experiencing such a loss. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours per credit hour in study and online. This course is dependent on successful completion of all Level 3 requirements. Prerequisites: BIO 171 and BIO 172 (for generic students), NUR 220.

NUR 243 Safety and Security Needs III: Pharmacology (1) In this course, students use the nursing process to safely administer medications. Students are introduced to the study of drugs, how the drugs act, and how the drugs move through the body, along with a format to organize drug information for both general classifications of medications and specific medications. Major drug classifications are covered. Drug actions, common side effects, contraindications, drug-drug interactions, and nursing implications are presented for each classification. The generic name, trade name, usual route(s), and safe dosage parameters for prototype drugs and/or commonly prescribed specific medications are highlighted. Medication errors are studied, and safe medication administration is the focus. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 180 or Permission of Instructor; co-requisite: NUR 220 or Permission of Instructor.

NUR 245 Psychiatric Client Needs I (1) In this course, students apply concepts of the nursing process and therapeutic communication with clients experiencing severe mental/emotional disorders likely to be seen in the acute care psychiatric setting: mood disorders and thought disorders. In addition, they learn assessments and interventions related to psychiatric emergencies: threatening/assault behavior and suicide. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 220; co-requisite: NUR 240.

NUR 246 Childbearing Family Needs I (1) This course focuses on the use of the nursing process for the client/family in various phases of the childbearing process - prenatal, labor, delivery, and postpartum. The emphasis is on the normal aspects of childbearing and views the client within the context of family. The normal prenatal course will be viewed from both the maternal and fetal perspectives and includes the dynamic physiologic, psychosocial, and emotional adaptations. The family will be studied through the process of labor and delivery, and the student will learn to assess the postpartum woman and the normal newborn. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 220; co-requisite: NUR 240.

NUR 247 Childbearing Family Needs II (1) The understanding of the concepts of illness provides a base for the students to learn the skills in this course directed toward mediating the impact of illness and hospitalization on children and their families. The concepts of the nursing process are expanded to enable the student to document the planned and implemented care that will meet the needs of patients and their families throughout the course of an illness. Nursing strategies for specific physiologic alterations will be included. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 220; co-requisite: NUR 240.

NUR 248 Geriatric and Palliative Care Nursing: Needs of the Elderly Client and the Terminally Ill Client (1) This is a Level 3 nursing course divided into two components. It will provide theory to assist the student with care planning and assessment for the geriatric client. It will also provide information to assist students with applying the nursing process to clients who are terminally ill and to their families. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 220; co-requisite: NUR 240.

NUR 253 Safety in Med Administration: Pharmacology for Nurses (3) This course focuses on safety issues involved in administering medications in a clinical setting. It covers drug classifications and the effects of that classification on the body systems. The student will be introduced to the basics of pharmacology and how the drugs work right down to the cellular level. This detailed information will make client assessments more meaningful. Case scenarios describing actual medication errors will follow each classification studied. In addition to drug classification, medical calculations, legal aspects and safety issues will be presented. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours per credit hour in study and online.
activity. Prerequisite: health care experience or current Nursing student.

NUR 255 Specialty Care Clinical: Psychiatric Nursing (2) This course provides an opportunity for the student to apply theory and skills mastered to date and to implement new theory and skills learned in the psychiatric client needs course. The student collaborates with the instructor, members of the nursing team, and the client within the context of family regarding care needs. The student exercises limited independence in collaboration with other members of the health care team to act as a client advocate. The student exercises limited independence to maintain standards, develop relationships, and assume accountability for learning and self-evaluation. The student utilizes the nursing process to perform ongoing assessments that include the family, to select nursing diagnoses, to plan care that incorporates principles of teaching/learning, and to implement and evaluate client-and family-centered care. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 220; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 240.

NUR 256 Specialty Care Clinical: Childbearing Family Nursing (2) This course provides an opportunity for the student to apply theory and skills mastered to date and to implement new theory and skills learned in the childbearing family needs courses. The student collaborates with the instructor, members of the nursing team, the client and the family regarding care needs. The student exercises limited independence in collaboration with other members of the health care team to act as a client advocate. The student exercises limited independence to maintain standards, develop relationships, and assume accountability for learning and self-evaluation. The student utilizes the nursing process to perform ongoing assessments that include the family, to select nursing diagnoses, to plan care that incorporates principles of teaching/learning, and to implement and evaluate client-and family-centered care. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 220; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 240.

NUR 257 Specialty Care Clinical: Childrearing Family Nursing (2) This course provides an opportunity for the student to apply theory and skills mastered to date and to implement new theory and skills learned in the childrearing family needs courses. The student collaborates with the instructor, members of the nursing team, the client and the family regarding care needs. The student exercises limited independence in collaboration with other members of the health care team to act as a client advocate. The student exercises limited independence to maintain standards, develop relationships, and assume accountability for learning and self-evaluation. The student utilizes the nursing process to perform ongoing assessments that include the family, to select nursing diagnoses, to plan care that incorporates principles of teaching/learning, and to implement and evaluate client-and family-centered care. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 220; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance.

NUR 258 Specialty Care Clinical: Geriatric and Palliative Care Nursing (2) This course provides an opportunity for the student to apply theory and skills mastered to date and to implement new theory and skills learned in the geriatric and palliative care nursing needs course. The student collaborates with the instructor, members of the nursing team, and the client within the context of family regarding care needs. The student exercises limited independence in collaboration with other members of the health care team to act as a client advocate. The student exercises limited independence to maintain standards, develop relationships, and assume accountability for learning and self-evaluation. The student utilizes the nursing process to perform ongoing assessments that include the family, to select nursing diagnoses, to plan care which incorporates principles of teaching/learning, and to implement and evaluate client-and family-centered care. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 220; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 240.

NUR 259 Elective Nursing Process Clinical III (2) This course provides opportunities for the student to have clinical experiences to work on personal objectives and/or those beyond the scope of basic preparation. These experiences will allow the student to be supervised in the clinical setting in order to gain additional experiential knowledge, enhance skills learned, and/or validate maintenance of skills. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: Permission of Instructor; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance.
NUR 260 Nursing Process and Concepts IV (1)
NUR 260 introduces the concepts essential for applying Level 4 theory in the clinical setting. The course material explores the discipline of nursing including historical perspectives; educational, ethical and legal issues; modes of health care delivery and nursing roles; application of the nursing process in the management of client(s) care; and professional trends and issues in leadership and management. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity for the theory and procedure components. Demonstration of the application of these concepts in the clinical setting is a requirement of NUR 260. The final grade in NUR 260 is dependent on successful completion of all Level 4 requirements. Prerequisites: BIO 171 and BIO 172 (for advanced-standing students), NUR 240.

NUR 261 Activity and Rest Needs II: Orthopedic Nursing (1)
This course provides the opportunity to apply the nursing process for the client with activity and rest needs. Students will learn assessment techniques for the client with mobility impairment. Principles of nursing care are emphasized for clients undergoing orthopedic treatment modalities for injury or disease. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 240; co-requisite: NUR 260.

NUR 262 Oxygenation Needs III (1)
This course builds on theory and skills learned in NUR 222 and provides the opportunity to focus on the use of the nursing process when caring for clients with acute and chronic conditions resulting from interferences with oxygenation related to the upper and lower respiratory tracts, and interferences with oxygenation related to circulation. Care of the patient with advanced respiratory and cardiac support is taught, as well as advanced electrocardiogram identification. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 240; co-requisite: NUR 260.

NUR 263 Safety and Security Needs IV: Neuro Science Nursing (1)
This course provides the opportunity for the student to focus on the use of the nursing process for the commonly occurring pathological conditions of the Nervous system, the Immune system, and the special senses (vision and hearing). Emphasis will be placed on using critical thinking to apply necessary theory knowledge in assessing, planning, implementing, and evaluating care for clients with these dysfunctions. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 240; co-requisite: NUR 260.

NUR 264 Nutrition and Elimination Needs III (1)
This is a Level 4 nursing course which provides theory to assist the student in body system assessment. The nursing process is applied to clients with illnesses that interfere with nutrition and/or elimination. For communicable illnesses, client needs are considered as well as those of client contacts and health care providers. The planning focus is the entire episode of illness, considering potential teaching and home health maintenance needs. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 240; co-requisite: NUR 260.

NUR 265 Psychiatric Clients Needs II (1)
In this course, students apply concepts of the nursing process and therapeutic communication with clients experiencing mental/emotional disorders that may be seen in a variety of settings (acute or distributive care, psychiatric settings or medical-surgical settings), among them addiction, eating disorders, and personality disorders. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 240; co-requisite: NUR 260.

NUR 266 Childbearing Family Needs II (1)
In this course, the student will study the maintenance of women’s reproductive health as well as disorders of the reproductive system. Contemporary issues related to contraception, sexually transmitted diseases, infertility, abortion, and violence will be covered. The student will also focus on applying the nursing process with the high risk client/family during the puerperium. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 220; co-requisite: NUR 240.

NUR 267 Childrearing Family Needs II (1)
The understanding of the concepts of growth and development provides a base for students to learn the skills, in this course, directed toward assessing and promoting health of children and their families. The concepts of the nursing process are expanded to enable the student to document the planned and implemented care that will meet the needs of clients and their families. Children’s perceptions and behaviors in relation to health concepts will be included. Time required for completion of this course is dependent on the individual learner; however, it is expected that students will spend at least 45 hours in study and classroom activity. Prerequisite: NUR 220; co-requisite: NUR 240.

NUR 271 Advanced Nursing Process Clinical (2)
This course provides an opportunity for the student to consolidate theory and skills developed in previous levels and to implement new
Level 4 theory and skills. The student functions in collaboration with members of the health care team, to provide care for hospitalized clients with complex needs. The client is viewed as part of a broader community. The student functions interdependently to establish priorities for a group of clients, to delegate and assist others with aspects of nursing care, and to provide for continuity of care, discharge planning and referrals. The student functions interdependently to maintain standards, to develop relationships, and to assume responsibility for self and others. The student applies the nursing process, considering previous illness, to develop and implement a plan of care for a group of clients. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 240; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 260.

NUR 272 Extended Advanced Nursing Process Clinical (2) This course provides the opportunity for the student to have additional experience in the medical-surgical hospital setting to meet the objectives of the courses in Level 4. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 271; co-requisites: complete and current health form on file, current CPR certification, malpractice insurance, NUR 260.

NUR 273 Extended Advanced Nursing Process Clinical (2) This course provides the opportunity for the student to have additional experience in the medical-surgical hospital setting to meet the objectives of the courses in Level 4. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: NUR 271; co-requisites: complete and current health form on file, current CPR certification, malpractice insurance, NUR 260.

NUR 279 Elective Nursing Process Clinical IV (2) This course provides opportunities for the student to have clinical experience to work on personal objectives and/or those beyond the scope of basic preparation. These experiences will allow the student to be supervised in the clinical setting in order to gain additional experiential knowledge, enhance skills learned, and/or validate maintenance of skills. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: Permission of Instructor; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance.

NUR 291 Role Transition: Capstone Course (2) This clinical course is designed as a collaborative experience between nursing service and nursing education. It is a reality-based experience in which the student, in conjunction with a registered nurse preceptor, begins to function as a beginning staff nurse. The preceptor acts as a role model, teacher, and supervisor, and determines the pace and extent of assignments based on the student's identified learning outcomes, the experiences available and the student's ability. The student is involved in a peer review process with the preceptor by maintaining and sharing a daily log, receiving formative feedback from which to identify learning needs and receiving summative feedback prepared by the preceptor at the conclusion of the experience. Students will spend a total of 56 hours over a two-week time period in clinical practice activities with a preceptor; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisite: Permission of Instructor; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 260.

NUR 292 Advanced Specialty Care Clinical (2) This course provides an opportunity for the student to experience an additional clinical setting to work on objectives beyond the scope of the basic preparation for all students. The student will apply the nursing process, utilize management principles and exhibit professionalism at an advanced level. Specialty clinical areas include, but are not limited to: intensive care nursing, psychiatric nursing, childbearing family nursing, childrearing family nursing, and gerontological nursing. Students will spend a total of 56 hours over an eight-week time period in clinical practice activities; in addition, students will be expected to spend substantial time preparing for and following up after each clinical day. Prerequisites: NUR 271 and Permission of Instructor; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance.

NUR 295 Distributive Care Clinical: Psychiatric Nursing (1) This course provides an opportunity for the student to consolidate theory and skills developed in previous levels, and to implement new theory and skills learned in the psychiatric client needs courses in settings not limited to acute care. The student functions in collaboration with members of the health care team within the context of community-based settings. The student functions interdependently to maintain standards, to develop relationships, and to assume accountability. The student applies the nursing process to perform assessments, select nursing diagnoses, and develop a plan for care. Students will spend a total of 28 hours over the semester in clinical practice activities; in addition, students will be expected to spend substantial preparation and follow-up time. Prerequisite: NUR 240; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 260.
NUR 296 Distributive Care Clinical: Childbearing Family Nursing (1) This course provides an opportunity for the student to consolidate theory and skills developed in previous levels, and to implement new theory and skills learned in the childbearing family needs courses in settings not limited to acute care. The student functions in collaboration with members of the health care team within the context of community-based settings. The student functions interdependently to maintain standards, to develop relationships, and to assume accountability. The student applies the nursing process to perform assessments, select nursing diagnoses, and develop a plan for care. Students will spend a total of 28 hours over the semester in clinical practice activities; in addition, students will be expected to spend substantial preparation and follow-up time. Prerequisite: NUR 240; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 260.

NUR 297 Distributive Care Clinical: Childrearing Family Nursing (1) This course provides an opportunity for the student to consolidate theory and skills developed in previous levels, and to implement new theory and skills learned in the childrearing family needs courses in settings not limited to acute care. The student functions in collaboration with members of the health care team within the context of community-based settings. The student functions interdependently to maintain standards, to develop relationships, and to assume accountability. The student applies the nursing process to perform assessments, select nursing diagnoses, and develop a plan for care. Students will spend a total of 28 hours over the semester in clinical practice activities; in addition, students will be expected to spend substantial preparation and follow-up time. Prerequisite: NUR 240; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 260.

NUR 298 Distributive Care Clinical: Geriatric and Palliative Care Nursing (1) This course provides an opportunity for the student to consolidate theory and skills developed in previous levels, and to implement new theory and skills learned in the geriatric and palliative care nursing needs courses in settings not limited to acute care. The student functions in collaboration with members of the health care team within the context of community-based settings. The student functions interdependently to maintain standards, to develop relationships, and to assume accountability. The student applies the nursing process to perform assessments, select nursing diagnoses, and develop a plan for care. Students will spend a total of 28 hours over the semester in clinical practice activities; in addition, students will be expected to spend substantial preparation and follow-up time. Prerequisite: NUR 240; co-requisites: completed and current health form on file, current CPR certification, malpractice insurance, NUR 260.

Nutrition

FOR MORE INFORMATION, CONTACT THE BUSINESS ADMINISTRATION DEPARTMENT IN THE WHITNEY APPLIED TECHNOLOGY CENTER, ROOM W324, (315) 498-2435.

NTR 218 Nutrition/Diet Therapy (3) A study of the principles of Basic Nutrition as they relate to normal growth, development and health. The student will study how nutrient intake can impact body systems and processes. Therapeutic diets for specific disease conditions will also be covered. This course is geared towards the basic and therapeutic knowledge needs of the nursing student.

Philosophy

FOR MORE INFORMATION, CONTACT THE SOCIAL SCIENCES DEPARTMENT IN MAWHINNEY HALL, ROOM M380, (315) 498-2301.

PHI 102 History of Philosophy - Ancient (3) Introduces students to the problems of philosophy through the critical examination of the earliest developments of philosophic thought: the Pre-Socratics, Socrates, Plato, and Aristotle.

PHI 104 History of Philosophy - Modern (3) An introductory course which examines the problems of philosophy as presented by the major philosophical movements of the 17th and 18th centuries. Representative readings will be selected from among the works of Descartes, Leibniz, Spinoza, Locke, Berkeley, Hume, Kant, and Hegel.

PHI 105 Nineteenth Century Philosophy (3) Primarily concerned with the post-Kantian trends in the philosophy of 19th century Europe. Emphasis will be placed on the most conspicuous figures of this period including Hegel, Schopenhauer, Marx, Mill, Kierkegaard, and Nietzsche.

PHI 106 Twentieth Century Philosophy (3) The student will be introduced to the two major philosophical movements of the 20th century, Analytic Philosophy and Existentialism, through selected writings of such philosophers as Moore, Russell, Austin, Wittgenstein, Husserl, Heidegger, Sartre, and Camus.

PHI 107 Logic (3) An introduction to modern symbolic logic. The course covers topics from among Aristotelian and modern class logic, informal fallacies, truth tables, proofs of invalidity, propositional logic, and the beginnings of predicate logic. Emphasis will be placed on acquiring the skills of logical technique.

PHI 108 Ethics (3) An introduction to basic problems about the application of the concepts of right, wrong, good and bad to persons and their actions. Topics covered may include: relativism and absolutism, determinism and freedom, and the foundations of moral obligation.

PHI 109 Philosophy of Religion (3) An introductory course examining issues in the traditions of western religious thought, e.g., proofs of the existence of God, the problem of evil, the relationship between religious belief and moral belief, religious experience and knowledge, immortality.
PHI 110 American Philosophy (3) Devoted to the search for characteristically American contributions to philosophical investigations. The course will examine how the issues of the great tradition of philosophy, developed in Europe, in the theories of existence, knowledge, ethics, and politics, have all been addressed by writers such as Emerson, Thoreau, Pierce, James, Dewey, Margaret Fuller, and also by Native American thinkers.

PHI 120 Ethics in Engineering and Technology (3) This course is an investigation of fundamental ethical issues relating to the fields of engineering and technology, focusing on organizing principles and ethical theory to frame problems that are typically encountered in the engineering industry. Topics to be discussed include: professional responsibility and accountability; honesty and integrity in the workplace; intellectual property; conflicts of interest; environmental issues; risk, safety and product reliability; legal liability; and diversity in the workplace. Contemporary case studies will be examined and debated in the context of such traditional philosophical schools of thought as utilitarianism and Kantian ethics. Prerequisite: ENG 103 or Permission of Instructor.

PHI 206 Philosophy of Law (3) This course concerns the fundamental nature of law, and the relations between law and morality. It covers natural law, imperative and rule-based theories of the nature of law, and alternative statements of the justice of law. The philosophers covered in the course will include Aristotle, Aquinas, Austen, Hart and Rawls. Prerequisite: one prior course in PHI or Permission of Instructor.

PHI 208 Philosophic Issues and Problems (3) Detailed study and analysis of some particular problem, area, or philosopher. The subject chosen will vary with each semester; the Philosophy department should be contacted for information as to the subject for a given semester. Prerequisite: one prior course in PHI or Permission of Instructor.

PHI 210 Philosophy of Science (3) Concerned with the nature of scientific theories and the evidence for them, as well as the ways these theories develop and change. Examples of the sorts of problems to be considered are the status of theoretical entities, the problems of induction, simplicity of theories, isomorphism of theories, and the nature of prediction. Examples of theories will be drawn from classical as well as contemporary science. Prerequisite: one prior course in PHI or Permission of Instructor.

PHI 211 Metaphysics and Epistemology (3) Concerned with fundamental questions about the nature of reality and our knowledge of it. Emphasis will be placed on acquiring the analytic tools required to examine these areas intelligently, and an attempt will be made to show how uncritical opinions in these areas affect behavior and belief. Prerequisite: one prior course in PHI or Permission of Instructor.

PHOTOGRAPHY

PHO 100 Basic Photography (3) This black and white photography course is an introduction to basic film and camera techniques, photographic aesthetics, and black and white darkroom procedures. Class time is a combination of lecture, demonstration, critique, and hands-on darkroom instruction. Regular assignments will be given. Students must have an adjustable camera.

PHO 111 Digital Photography (3) This non-major course is designed to cover the basics of digital photography. Instruction will introduce students to the digital camera and its functions, offering students a better understanding of the terminology and requirements as well as the limitations of digital imagery. The course will cover issues of composition, design, color theory and the history of photography to help students work creatively with their digital cameras. Students will be introduced to image editing software for color correction, image manipulation, and digital output. Projects will involve a range of subject matter and may include: portraiture, landscape, architecture and event photography. (Class time will include lecture, demonstration, aesthetics, critique and in-class projects.) Students must have a digital camera.

PHO 150 Black and White Photography II (3) A study of advanced black and white photographic techniques and theory. Students will produce a portfolio of images and work through a series of assignments that will increase the students’ understanding of the photographic medium. Class time will include lecture, demonstration, aesthetics, critique, and in-class projects. Students must have an adjustable 35mm camera.

PHO 160 Color Photography I (3) This course will cover analog and digital color photography including exposure, processing, printing, color theory, color management, and digital output. Aesthetics and communication will be stressed. Class time will include lecture, demonstration, aesthetic critique, and hands-on darkroom instruction. Writing and reading assignments as appropriate to the discipline are part of this course. Prerequisite: PHO 100 or Permission of Department.
PHO 170 Studio Lighting and Techniques I (3) This course is designed to introduce students to the tools and practice of studio photography. Students will be introduced to medium and large format cameras, tungsten and strobe lighting systems as well as other lighting equipment. Class will focus on creation of black and white imagery with projects drawn from the following: advertising, portraiture, fashion, product photography, digital, architecture and fine art. Students will develop a working knowledge of all the tools of the studio as well as the ability to work knowledgeably in the crafting of effective lighting of all subject matter. Class projects may involve digital equipment and editing as well as work with analog film material. Class time will include lecture, demonstration, aesthetics, critique and in-class projects. Prerequisite: PHO 150 or Permission of Instructor.

PHO 175 Special Topics in Black and White (3) Topics of special interest to broaden and intensify the students’ ability to use black and white photography as a means of communication and expression. Class time will include lecture, demonstration, aesthetics, critique and hands-on darkroom instruction. Students must have a 35mm adjustable camera.

PHO 250 Color Negative Photography (3) Acquaints students with skills in color materials handling, from exposure to color negative printing. Course will cover color theory and applied problems in color photography: processing and printing, color balance and correction. Aesthetic and communicative aspects of color photography will be stressed. Regular assignments and a completed portfolio are a requirement of this course. Class time will include lecture, demonstration, aesthetics, critique and hands-on darkroom instruction. Students must have a 35mm adjustable camera. Prerequisite: PHO 150 or Permission of Instructor.

PHO 260 Color Photography II (3) This course is an advanced color photography class using color negative and color transparency film as well as digital material. The course will build on the foundation created in PHO 160 and ART 142 for working with color photographic imagery in both analog and digital modes. Projects will address the relative strengths and weaknesses of both the analog and digital worlds. Class will focus on mastering color correction in both the analog and digital darkroom. In addition to non-digital projects, students will work with image-editing software for creation of collage and montage imagery. Topics covered will include digital scanning and cameras, image manipulation, color correction and management, digital output. Class time will include lecture, demonstration, aesthetics, critique and in-class projects. Prerequisites: PHO 160 and ART 142.

PHO 270 Studio Lighting and Techniques II (3) This course is an advanced studio photography class. Students will focus on effective use of medium- and large-format cameras as well as the full range of lighting equipment (tungsten and strobe) for work in both digital and analog (film-based) color photography. Class will address advanced studio techniques and creative problem solving using both traditional and digital methods. Assignments may include projects in advertising, portraiture, fashion, product photography, architecture and fine art. Class time will include lecture, demonstration, aesthetics, critique and in-class projects. Prerequisites: PHO 170 and ART 142.

PHO 271 Alternative Photographic Process (3) This course is an introduction to alternative photographic techniques and an expanded investigation of various modes of photographic presentation. Students will study techniques and photo processes ranging from the 19th century (such as cyanotype, gum bichromate and van dye brown) to the most contemporary digital techniques with an eye toward adapting and combining various techniques for innovative personal expression. Students will be encouraged to move beyond the traditional presentation methods of photography and to devise presentation styles to match and augment their photographic content. Possibilities include: sequential imagery (book, video or digital), collage and montage, mixed media, wall hangings and sculptural and installation uses of photography. Class time will include lecture, demonstration, aesthetics, critique and in-class projects. Prerequisites: PHO 150 and ART 142.

PHO 272 Documentary Photography (3) This course allows students to investigate a range of topics and issues typical to the photojournalist. These may include: legal and ethical issues, news, spot news, portrait and action photography, travel imagery, picture editing, photography and writing, digital imagery and the extended documentary project. Class is designed to provide a solid introduction to the work of the photojournalist. Class time will include lecture, demonstration, aesthetics, critique and in-class projects. Prerequisites: PHO 150 and ART 142; recommended: PHO 160.

PHO 275 Special Topics in Color (3) This course provides the students the opportunity to apply their color skills in a photographic genre of their choice. The studio, medium- and large-format cameras and advanced printing techniques will be covered. A completed portfolio reflecting the student’s personal aesthetic is a requirement of this course. Class time will include lecture, demonstration, aesthetics, critique and in-class projects. Prerequisites: PHO 150 and Permission of Instructor.

PHO 276 Digital Imaging (3) This studio course covers the basics of digital imaging to create a broad understanding of digital capabilities and their relationship to traditional photographic image production. Emphasis will be on Macintosh Systems and Adobe Photoshop. Topics covered will include design, image manipulation, scan-
PHO 290 History of Photography (3) A survey of the history of photography, with concentration on selected major figures in photography from the nineteenth and twentieth centuries. Class activities will include instructor's presentations, student reports, field trips, guest presentations, and discussions based upon those activities and upon assigned readings in the history of photography.

PHO 291 CO: Cooperative Education (3) The course is designed to provide work experience directly related to the student's field of study. A learning contract, containing specific educational objectives related to the work experience and the student's field of study, is developed by the student and the faculty co-op coordinator. Course requirements include a minimum of 180 hours of work in the student's field of study, maintenance of a daily log of hours worked and duties performed, and a work-related final project or paper. This will allow the student to earn 3 credit hours. The student's performance will be evaluated by the faculty co-op coordinator on the basis of the objectives in the initial learning contract and satisfactory evaluations by the employer. A letter grade will be assigned. Photography majors ONLY. Prerequisite: Approval by the Photography department.

Physical Education


PEH 100 Lifetime Physical Wellness (1PE) This course will provide the student with an overview of wellness and physical fitness principles. Through course lectures and actual participation, the material covered will enable the student to initiate a healthy lifestyle change. Topics covered include: the four areas of physical fitness, proper nutrition for a healthy lifestyle, relaxation and stress management techniques, self-responsibility as it relates to personal health management, prevention and care of common injuries, and the use and misuse of supplements. There are no prerequisites for this course.

PEH 101 Beginning Swimming (1PE) For students who are extremely limited in their ability to handle themselves in water. These students are unable to perform one or more of the following basic beginner skills: 1) Put face in water, hold breath for 10 seconds; 2) Face float, front glide and recover; 3) Back float, back glide and recover; 4) Not be fearful of deep water; 5) Jump into the water. Students will be tested on the first day of class to be sure they are in the right course.

PEH 103 Intermediate Swimming (1PE) The course will focus on stroke technique while increasing endurance and safety in and around the water. There is an emphasis on swimming as an enjoyable lifetime activity that will increase physical fitness and enhance the overall well being of the individual. There is no prerequisite to this course; however, the student must be able to swim one length of the pool crawl stroke with rotary breathing to enter the course.

PEH 105 American Red Cross Lifeguard Training (2PE) American Red Cross course that leads to certification. Deals with the additional skills and knowledge required by individuals to develop effective lifeguard systems at swimming pools and at non-surf, open-water beaches. Prerequisite: PEH 103 or equivalent skills.

PEH 106 Water Safety Instructors (2PE) Taught under American Red Cross standards leading to certification. This course prepares candidates to be teachers of American Red Cross Water Safety courses. Prerequisite: Current American Red Cross Advanced Lifesaving Certification and American Red Cross Swimmer's Skills.

PEH 107 Basic Scuba Diving (1PE) Taught under National Association of Skin Diving Schools, leading to certification. This course is open to individuals who meet the physical and preliminary swimming test qualifications. Additional fee is required.

PEH 109 Water Aerobics for Women and Men (1PE) A fun fitness program in the pool. Jumping, jogging and other calisthenics movements are incorporated into this well-monitored aerobic workout in the shallow end of the pool. Water aerobics provide as much resistance as lifting weights, but is safer. It has as much cardiovascular benefits as aerobics, but less impact than low impact aerobics in a gym. Knowing how to swim is not required. This course can be used toward the Physical Education Activity requirement. There are no prerequisites for this course.

PEH 114 Horsemanship (1PE) This course will provide the student with a basic knowledge of proper horsemanship. Through lectures and actual riding lessons, the student will learn the proper techniques of caring for a horse, riding, etiquette, grooming, horse anatomy, and safety. The student will gain self-confidence for personal safety and riding enjoyment. In addition, the student will better understand the horse and how it functions, both mentally and physically. There is an additional fee per riding session for this class. There are no prerequisites for this course.
PEH 120C Horsemanship II (1PE) This course is a natural progression from Horsemanship I. Through lectures and actual riding lessons, the student will enhance his/her understanding of the nature of horses and proper methods of caring for horses. They will identify different breeds, colors and markings. Advanced riding, handling, and grooming skills will be taught along with more detailed instruction on the care and structure of horses. Prerequisite: PEH 114, or the equivalent of 15 hours of riding instruction.

PEH 129 Beginning Tennis (1PE) Primarily designed for those individuals who have no previous tennis experience. Areas to be covered include equipment, etiquette, rules, stroke fundamentals, and theory.

PEH 136 Aerobic Dancing for Women and Men (1PE) A fun fitness program comprised of a variety of energetic dances that incorporate muscle toning, flexibility, balance, coordination and cardiovascular fitness. Course includes well-monitored workouts, beginning with slow, easy aerobics and working up to more vigorous routines. Meets the Physical Education Activity requirement.

PEH 139 Ballroom Dancing (1PE) Designed for the student who has had little or no background in ballroom dancing. This course will stress the development of basic rhythms in four or five different dances (fox trot, waltz, cha cha, rhumba, etc.) It will teach the basic steps, patterns, and simple breaks of the dances involved. Finally, it will stress good leading and following techniques so dancing can be an interpretive experience instead of mechanical.

PEH 143 Skiing (1PE) A course designed to teach all levels of skiing, from beginner to competitive skiing, depending on the ability of the individual. It includes instruction in the mechanics of skiing, exercise, safety, and care of equipment. Additional fee required.

PEH 145 Bowling (1PE) A comprehensive course covering all the fundamental aspects of the game for the beginner through the experienced player. It includes development, values, basic skills, rules, scoring, etiquette, and equipment. Additional fee required.

PEH 151 Karate (1PE) This course is designed to teach a basic knowledge of the techniques and philosophy of Karate.

PEH 155 Yoga (1PE) An introduction to Yogic exercises. Course includes techniques of relaxation, breathing exercises, exercises in bending and stretching, asanas.

PEH 157 Beginning Golf (1PE) A course for the beginning golfer. Basic fundamentals of the game of golf are stressed, along with various clubs and their uses, essential rules and etiquette, and some historical background on the origin of golf. Practical play at a local golf course is included.

PEH 160 Basic Floor Pilates (1PE) This course is designed to give students an understanding of the history of pilates while providing a safe and balanced exercise program that includes training the core muscles as well as the whole body. There are no prerequisites to this course.

PEH 161 Water Polo (1PE) This is a comprehensive activity course designed to teach and practice the fundamental skills of water polo. The rules and strategies of what is considered one of the most demanding games will be introduced and practiced individually and during game play. The course will improve fitness through the required conditioning exercises. The course is open to anyone who can swim 300 yards without stopping.

PEH 163 Basic Weight Training for Life (1PE) Designed to give students the necessary techniques and knowledge in the area of weight training so they will be able to pursue intelligently and safely a program of weight training that will fit each student’s specific needs or desires. All areas of weight training will be covered, such as Olympic lifting, lifting for athletes, physical therapy, body building and physical fitness for enthusiasts. Use of free weights and weight machines will be implemented.

PEH 168 Beginning Volleyball (1PE) A comprehensive course applying rules to individual skills and team strategy.

Physical Therapist Assistant

FOR MORE INFORMATION, CONTACT THE PHYSICAL THERAPIST ASSISTANT DEPARTMENT IN FERRANTE HALL, ROOM F267, (315) 498-2458.

PTA 101 Introduction to Rehabilitation (3) The American Physical Therapy Association and the history of the profession of physical therapy are explored. The student is introduced to procedures used in physical therapy, settings where PT is practiced, and the physical therapist assistant’s role as part of the rehabilitation team. Ethical and legal considerations in physical therapy are also introduced. Communication skills are developed, including effective interpersonal communication, oral and written reports and medical terminology. Vital signs, dressings, aseptic techniques and various emergency procedures pertinent to the practice of physical therapy will be learned. The student is required to become CPR certified on an independent basis. Prerequisite: Acceptance into the PTA program or Permission of Instructor; co-requisites: PTA 102, 102L, and 103, or Permission of Instructor.

PTA 102 Physical Therapy Procedures I (2) The theory and practice of physical therapy procedures are begun, including patient positioning and handling techniques, skin care, heat, cold, hydrotherapy treatments and massage. Ambulation with assistive devices, transfers, activities of daily living skills and wheelchair prescription and use are taught. The theory, effects, contraindications and safety precautions of these treatments are learned.
Prerequisite: Acceptance into the PTA program or Permission of Instructor; co-requisites: PTA 101, 102L, and 103, or Permission of Instructor.

PTA 102L Physical Therapy Procedures I Lab (2) Skills of PTA 102 are practiced. Students will master entry level skills on patient positioning and handling techniques; heat, cold, and hydrotherapy treatments; and massage. Students will become proficient with ambulation using assistive devices and patient transfer techniques. Activities of daily living skills, use of adaptive equipment, and wheelchair prescription and use will also be learned. Prerequisite: Acceptance into the PTA program or Permission of Instructor; co-requisites: PTA 101, 102, and 103, or Permission of Instructor.

PTA 103 Clinical Training I (1) An introduction to the physical therapy department of a clinical facility. The lecture component includes an introduction to the Geriatric setting. Assignments are designed to allow students to observe, assist and acquire skills in application of all procedures studied in PTA 101 and 102. Prerequisite: Acceptance into the PTA program or Permission of Instructor; co-requisites: PTA 101, 102, and 102L, or Permission of Instructor.

PTA 104 Physical Therapy Procedures II (2) Presents the principles, theory, effects and contraindications of forms of electrotherapy, deep heat modalities, ultraviolet and traction. Mechanisms of injury and the healing process are taught. Theory and principles of passive range of motion and therapeutic exercise are introduced. Theory of peripheral joint mobilization and stretching is discussed. Basic assessment and treatment of musculo-skeletal injuries are introduced and discussed. Prerequisites: PTA 101, 102, 102L, and 103, or Permission of Instructor; co-requisites: PTA 101, 102, and 102L, or Permission of Instructor.

PTA 104L Physical Therapy Procedures II Lab (3) Students master entry level skills of application of various forms of electrotherapy; deep heat modalities, ultraviolet and traction. Students become proficient in selecting and executing passive range of motion and therapeutic exercises. Students are familiarized with the practical application of joint mobilization and stretching of the limbs. Prerequisites: PTA 101, 102, 102L, and 103, or Permission of Instructor; co-requisites: PTA 101, 102, and 102L, or Permission of Instructor.

PTA 105 Functional Anatomy I (3) Application of principles of anatomy in the study of human motion. Emphasizes the positioning and procedures for muscle testing, and goniometry of the lower extremities and the physiology of muscle contraction. The origins, insertions, actions, innervation and palpations of various muscles of the lower extremities will be learned, in addition to landmarks of the skeletal system. Normal and abnormal posture and gait are studied. A laboratory component is required. Prerequisites: PTA 101, 102, 102L, and 103, or Permission of Instructor; co-requisites: PTA 104, 104L, and 106, or Permission of Instructor.

PTA 106 Clinical Training II (3) In the clinical setting, the student applies newly acquired concepts and skills from PTA 104 and 105 and refines skills learned in PTA 102 and 102L. Prerequisites: PTA 101, 102, 102L, and 103, or Permission of Instructor; co-requisites: PTA 104, 104L, 105 or Permission of Instructor.

PTA 201 Physical Therapy Procedures III (4) Studies the pathology, signs, symptoms, psychosocial factors and PT management of disabilities related to strokes, spinal cord injuries, amputations, pediatric and developmental disabilities, fractures, collagen diseases, orthopedic procedures, orthotics and prosthetics. A laboratory component is required. Prerequisites: PTA 104, 104L, 105, and 106, or Permission of Instructor; co-requisite: PTA 207 or Permission of Instructor.

PTA 204 Seminar (3) Topics for this course include: the death, dying and bereavement process; ethical, legal and cultural implications; administration topics (reimbursement, quality assurance, budgeting, policies and procedures); motivational strategies; communication and planning. The use of computers specific to the physical therapy profession will be discussed. Students will explore PT practice issues, current literature review and evidence-based research online. Ergonomics, functional capacity assessment and work hardening objectives will be discussed and demonstrated. Pharmacology, lab work, and medical imaging and their implication to PTAs will be discussed. Topics such as bariatrics, lab values, hemophilia, acid-base imbalance, multiple organ dysfunction syndrome, 6-1 system, sexual harassment and domestic violence are explored. The student will be given the opportunity to present an in-depth paper and oral report on a PT-related topic of interest, such as alternative medicine or a current issue of concern. Prerequisites: PTA 201 and 207, or Permission of Instructor; co-requisite: PTA 204 or Permission of Instructor.

PTA 207 or Permission of Instructor.
PTA 206 Advanced Clinical Training II (3) Under direct supervision of a registered physical therapist, the student will be able to synthesize acquired concepts and skills from the previous levels of clinical and didactic training. The clinical experience follows the completion of all required physical therapy courses. Prerequisites: PTA 203, 204, 205, and 208, or Permission of Instructor; PTA majors only.

PTA 207 Functional Anatomy II (3) A continuation of PTA 105, this course includes bony landmarks, origins, insertions, actions, innervation and palpations of the muscles of the upper extremity, head, neck, and trunk. Goniometry and muscle testing will be learned on the upper extremity and trunk. A laboratory component is required. Prerequisites: PTA 104, 104L, 105, and 106; co-requisite: PTA 201 or Permission of Instructor.

PTA 208 Seminar II: Strategies for Success (2) This course synthesizes knowledge gained from each course taken within the PTA curriculum to better prepare the graduate for entry-level career positions. The student will learn how to organize and review the vast amounts of material that have been presented to them in the PTA curriculum. The student will undergo a collegial-level review process, and log formative feedback to identify learning needs and individual weaknesses. This course is also geared towards preparing the student to successfully complete the National Physical Therapist Assistant Exam (NPTE). Prerequisites: PTA 201 and 207, or Permission of Instructor; co-requisites: PTA 203 and 204.

Physics

PHY 101 Technical Physics I (4) A course in general physics which emphasizes applications of basic principles. It covers fundamentals in mechanics, heat, and wave behavior. Three class hours and two laboratory hours. Co-requisite: MAT 101 or equivalent. Not open to Math/Science students.

PHY 103 General Physics I (4) The first semester of a two-semester, basic, non-calculus General Physics course emphasizing fundamental concepts and principles with a problem-solving approach. Topics covered include Kinematics and Dynamics, Newton’s Laws, Work and Energy, Momentum, Rotational Motion, Heat and Thermodynamics. A two-hour recitation session allows the opportunity to work on techniques of problem solving. Two class hours, two recitation hours and two laboratory hours. Prerequisite: MAT 114 or higher. Only four (4) credits in either PHY 103 or PHY 105 may be used toward degree requirements.

PHY 103R General Physics I Recitation (1EQ) Optional recitation section for PHY 103. Provides an opportunity for students to apply the basic laws of mechanics and to develop problem-solving skills. Structured as small group activities; requires completion of worksheets weekly.

PHY 104 General Physics II (4) The continuation of PHY 103. Topics covered include Vibrations and Wave motion, Physical and Geometrical Optics, Electricity and Magnetism, simple AC and DC Circuits and Modern Physics. Two class hours, two recitation hours, and two laboratory hours. Prerequisite: PHY 103 or equivalent.

PHY 105 Physics I-Mechanics (4) The first course of a calculus-level sequence in general physics, primarily for engineering students or for students majoring in the physical sciences. Kinematics and dynamics of a particle, Newton’s laws of motion, work and energy, momentum, rotational motion, and gravity. Three class hours and three laboratory hours. Co-requisite: MAT 161. Only four (4) credits in either PHY 103 or PHY 105 may be used toward degree requirements.

PHY 105R Physics I Recitation (1EQ) This is an optional recitation section for students taking PHY 105. It is structured as small group activities and provides students an opportunity to develop problem-solving skills in the subject of Mechanics. Co-requisite: PHY 105.

PHY 205 Physics II - Electricity and Magnetism (4) An analytical treatment of electricity and magnetism. Electrostatics, electric current, magnetic fields, electromagnetic induction and Maxwell’s equations. Three class hours and three laboratory hours. Prerequisite: PHY 105; co-requisite: MAT 162.

PHY 205R Physics II Recitation (1EQ) This is an optional recitation section for students taking PHY 205. It is structured as small group activities and provides students an opportunity to develop problem-solving skills in the subject of Electricity and Magnetism. Co-requisite: PHY 205.

PHY 206 Physics III-Thermodynamics and Waves (4) Heat transfer and thermodynamics, periodic motion, wave properties and propagation, sound, light, and elements of modern physics. Three class hours and three laboratory hours. Prerequisite: PHY 205; prerequisite/co-requisite: MAT 162.

Political Science

POS 100 American National Politics (3) This course will introduce students to American democracy and its founding, contemporary governmental institutions and politics at the national level of government, and provide students with opportunities to participate as citizens in the U.S. political system. Political theories and ideas will be applied in daily discussions of current political affairs. Specific topics that will be analyzed include: political parties, interest groups, media, Federalism, Congress, the Presidency, the Supreme Court, and the policy-making that results from their interactions.
POS 102 State and Local Politics (3) In this course, politics, government, and public policy issues at the local level and in New York state are the focus. Student will explore how New York state differs and is similar to other states in the country. Students will examine the interaction between political culture, region, partisanship, and policy in local governments and New York state and explore the prospects for political and institutional reforms.

POS 198 Introduction to Political Thought (3) This course introduces students to arguments which seek to define, explain and justify various forms of political organization in the ancient and modern worlds. Students will analyze and discuss various concepts of justice. The dominant philosophical ideas that inform our political thinking will also be examined and critiqued.

POS 201 Comparative Politics (3) Students will learn about each of the world's regions and particular nation-states within each region. Regions and nation-states will be compared with one another and with the U.S.A. Historical and geographical factors will be examined to determine their effects on the contemporary political, economic and social patterns that exist in each of the regions. Further problems and the prospects for political and economic development in each region will also be analyzed. No prerequisite.

POS 214 Contemporary Global Issues (3) An interdisciplinary course which explores contemporary global issues. It surveys themes related to social, political, economic, and cultural processes; global linkages/interdependencies; and power relations that connect individuals, communities, groups, states, and regions across the globe. It examines the values and visions emerging from regional perspectives that lead to conflict and/or cooperation in the international system. It contrasts the increasingly complex problems faced by different regions with the growing integration of the global economy. Open to all interested students. Required course for all students pursuing the International Studies Concentration.

POS 215 The Politics of Native American - U.S. Relations (3) This course will cover three aspects of the relationship between Native American peoples and the U.S. government. The first includes a sample of Native American governance and law that existed prior to European settlement, its later influence on the U.S. founding, and its rebirth. The second part of the course will examine U.S. government policies toward native tribes from 1790 to the present. Treaties, acts and court decisions that reflect these policies will be analyzed. The last third of the course will include a discussion of contemporary issues and conflicts between and among various Native American tribes and the U.S. government. These contemporary topics will include: land claims, land use, gambling, poverty, religious freedom, and social and environmental policies.

POS 216 Student Leadership Development (2) This is a course designed to provide a theoretical framework and leadership development for those involved with the co-curricular activities of OSSA (Onondaga Student Services Association, Inc.). Student leaders and other interested students will learn about the design of government, rule-making in government, political participation, and the application of these concepts to the practice of student politics. Lecture, discussion and role-playing will be integrated to provide a unique educational seminar for student leaders. Prerequisite: Permission of Instructor.

POS 230 Women and Politics (3) This course will compare and contrast the role of women in politics in the US, Western Europe and a selection of countries from the less-developed world. The suffrage movement and ERA movements will be examined for their successes and failures and compared to similar political movements in the west. Women as political actors will be studied: as voters; as party members; as interest group members; as legislators; and as executives in the US, Europe and the developing world. The effect that women in office have on policy-making will be evaluated in different regions. A brief survey of how certain public policies affect women will be covered, as will U.N. efforts in the area of international women's rights.

POS 260 New York State Environmental Regulation (3) This course surveys environmental regulatory management in New York state. Included are historical approaches to regulation, samples of present procedures, and samples of developing trends. The primary focus of the course is on programs of the New York State Department of Environmental Conservation. In addition to NYS DEC programs, the course will introduce the student to other agencies' regulatory jurisdictions at the federal, state and local levels. Various local approvals will also be considered. The emphasis is on the inter-relationship of programs, not the specific details of the programs themselves.

POS 280 Internship in Politics and Government (3) The course provides students the opportunity to apply their knowledge of politics and government in a practical setting. Internships are available in various public offices in the executive/legislative, legislative, or judicial branches of government at the national, state and local levels. Internships with major political parties may also be available. Students arrange their placement with the help of the Cooperative Education Office and a faculty coordinator. Course requirements include a minimum of 120 hours of work, maintenance of a weekly journal, attendance at four on-campus seminars, occasional readings, and an experience-based essay. Two on-site evaluations will also be made by the faculty coordinator. Letter grade will be awarded. No credit given for past work experience. Prerequisite: Permission of Instructor.
POS 281 Practicum in Student Leadership (1)
A one-hour practicum for which student government officers and senators can earn credit for the academic components of their positions. This project is geared towards the responsibilities of each student officer’s job description. The faculty instructor and each officer communicate throughout the semester to ensure goals are being met, and an essay and/or portfolio is written to illustrate the achievement of these goals. At least 30 hours of student government-related activities and office hours are required of each officer each semester.

POS 290 Senate and Assembly Internship (9)
Senate and Assembly internships are available on a competitive basis for outstanding sophomores. The program begins with a comprehensive week-long orientation to the operation of the State Government, with particular reference to the workings of the Legislature. Interns then receive full-time job assignments in the office of an Assemblyman or Assembly committee; the assignments are based on a work plan and a learning contract between a supervisor and an intern; tasks involve constituent work, research on specific legislation, research on the legislative process, and office administration; supervisors are either members of the Assembly, members of their legal or research staffs, or committee staff; job performance is formally evaluated on a regular basis by the supervisors. During the course of the program, interns participate in seminars covering such topics as descriptive statistics, evaluating social programs, behavior of legislators, legislative decision-making, and current political issues. Interns receive academic guidance and support, on an individual and group basis, from the permanent program staff, from the Professor in Residence, and from staff within the Assembly (and the State Government) who work with the interns on specific topics and who provide them with a unique blend of academic and practical expertise. The Professor in Residence evaluates the interns at regular intervals and at the end of the program. Prerequisite: POS 100 or POS 102 or Permission of Instructor.

POS 291 Senate and Assembly Research and Seminar (6)

Psychology

FOR MORE INFORMATION, CONTACT THE SOCIAL SCIENCES DEPARTMENT IN MAWHINNEY HALL, ROOM M380, (315) 498-2301.

PSY 103 General Psychology (3) Designed to give the student an introduction to the concepts required for the study of perception, conditioning, learning, intelligence, motivations, emotions, and personality. The interaction of heredity and environment is also stressed. Prerequisite to all other psychology courses.

PSY 204 Child Psychology (3) An introduction to the scientific study of the developing child. The age span covered ranges from the prenatal period up to puberty. Topics include age relevant studies of motor, cognitive, linguistic, social and personality growth. Prerequisite: PSY 103.

PSY 205 Social Psychology (3) An introduction to the area of human social interaction from the perspective of how man affects and is affected by social phenomena. Social factors in the development of personality and motivation, attitudes and attitude change, interpersonal and group processes, and the application of social psychology to contemporary issues will be emphasized. Students will be expected to critically evaluate the explanatory models used to describe, explain, and predict social behavior. Prerequisite: PSY 103.

PSY 206 Human Growth and Development (3) Human growth and psychological development of the individual from infancy through senescence. Attention is given to the patterns of change that occur during each of the life stages, considering physiological, psychological, genetic and cultural forces affecting human development. Prerequisite: PSY 103.

PSY 207 Adolescent Psychology (3) All of the important aspects of the lives of adolescents are studied from a theoretical and research viewpoint. Topics discussed include the following: development of the self-concept, sexual maturation, morality, mental growth, vocational choices, love and affection, anger, fear, parents, peer relationships, home and family, marriage, the drug culture, etc. Prerequisite: PSY 103.

PSY 208 Personality Theories (3) A comparative analysis of various theories of personality in terms of the issues separating them, and an examination of the role of research in resolving these issues. The course covers representative theories of personality from the areas of psychoanalytic, cognitive, phenomenological, and humanistic psychology. Analyses of the issues generated by these theories, and their explanatory adequacy, will also be considered. Prerequisite: PSY 103.

PSY 209 Psychology of Adulthood (3) Introduces the student to the current issues, questions, and research in the field of adult development. The course will address how personality development is affected by various adult-life crises or life passages such as: forming intimate relationships, parenthood, job change, mid-life crisis, retirement, aging, and death. Prerequisite: PSY 103.

PSY 210 Abnormal Psychology (3) Deals with the important aspects of “abnormal psychology”, both from a descriptive as well as a theoretical viewpoint. In addition to noting the various symptoms and characteristics of psychological disorders, an emphasis will be placed on explaining the possible causes of such disorders and their possible methods of treatment. Prerequisite: PSY 103.

PSY 211 Psychology of Leadership and Work (3) Designed to study the interplay of humans and organizations. This course is concerned with many of the major effects on individuals, both management and workers, by our rapidly chang-
PSY 218 Psychology of Disabilities (3) This course will address issues faced by individuals with physical disabilities, whether congenital, hereditary or traumatic in nature. Included is a discussion of the Americans with Disabilities Act, 1990, and its effects on the self-image of the disabled. The course will include definitions of disabilities, cultural attitudes about the disabled, and reactions of family members to the disabilities. Information about support services will also be given. Prerequisite: PSY 103.

PSY 219 Positive Psychology (3) Positive Psychology explores the scientific study of ordinary human strengths and virtues. We will examine human behavior that is effective, valuable and contributes positively to human development. We will study how humans live lives of dignity and purpose and will include such topics as subjective well-being; peak performance; wellness; interventions for enhanced well-being; religion and spirituality; and work, community and well-being. This course takes a holistic and general systems theory perspective. Prerequisite: PSY 103.

Reading and Study Skills

For more information, contact the English Department in Mawhinney Hall, Room M310, (315) 498-2313/2266.

RDG 087 Intermediate Reading Skills (3EQ) Designed to meet the needs of students who wish to strengthen their reading and study skills. Emphasis will be placed on vocabulary building; structural analysis; spelling improvement; such comprehension skills as paraphrasing and summarizing; and improving the study skills of time management, organizational techniques and listening. Prerequisite: RDG 079 or on the basis of Placement Test Score.

RDG 087L Intermediate Reading Skills - Lab (1EQ)

RDG 093 Reading Preparation for College (3EQ) Designed to meet the needs of students who wish to strengthen their reading and study skills to the level necessary to handle the demands of college-level work. Emphasis will be placed on such comprehension skills as organizational patterns, outlining, overview outlining in texts, marketing texts and summarizing; study skills such as listening and note taking, time management and library use; and vocabulary building, including dealing with technical terms in content area courses. Prerequisite: RDG 087 or Placement Test.

RDG 093L Reading Preparation for College - Lab (1EQ)

RDG 130 Reading and Study Skills (1) Designed to improve basic skills necessary for college success. Emphasis will be on effective methods of study and reading comprehension.
RDG 134 Listening and Notetaking Skills (1)
Course stresses improvement in both listening and note-taking during lectures. Emphasis is on listening for main ideas and for supporting details. The Cornell Method of note-taking is stressed and students are encouraged to apply the method to actual lecture courses. Skills analysis will provide direction for improvement.

RDG 136 Vocabulary Building (2) Designed to provide the student with several methods for dealing with unfamiliar words. Meaning in context, structural analysis, history of language, and dictionary and thesaurus skills will be studied. Students will work to improve their choice of words in writing and to strengthen their recognition vocabulary when reading. Prerequisite: Placement Test/RDG 093.

RDG 140 Vocabulary and Learning Strategies for Health Sciences (3) Designed specifically for health science majors for the purpose of developing learning strategies and vocabulary in the science content areas. The learning strategies component will focus on improving note-taking in science classes, reading science textbooks, active strategies for integrating class materials for test preparation, and test-taking strategies for lecture and lab exams. The vocabulary component will focus on developing knowledge of Greek and Latin roots and affixes, as well as building science knowledge and vocabulary from current health readings. Prerequisite: Placement Test/RDG 093.

RDG 142 Reading and Learning Strategies (3) This course is designed to help students manage the demands of technology courses. Emphasis is on breaking down technological reading materials with focus on reading for information from technical manuals and documents. Understanding technical jargon and acronyms will also be addressed. Effective notetaking and active study strategies combined with higher level thinking skills to prepare for exams and efficient time management will also be incorporated as a means to improve student success in technical curricula. Special emphasis will be placed on problem-based learning using collaborative teams.

RDG 153 College Learning Strategies (3) This course is designed to help students become more efficient learners through practice of higher level thinking skills. Emphasis is on taking complete, accurate notes; effective use of class notes in study; reading and marketing text assignments; strategies for taking essay and objective exams; studying beyond the literal level; and techniques for dealing with technical terms and unknown vocabulary. Prerequisite: Placement Test/RDG 093.

RDG 154 Critical Reading (3) Emphasis is on critical reading and thinking skills, vocabulary development and reading flexibility. Students will analyze and evaluate material beyond the literal level. Critical thinking skills will also be applied to the mastery of content area course work. Prerequisite: RDG 153 or Permission of Instructor.

Recreation Leadership

REC 101 Recreation and Leisure Studies: An Introduction (3) This course is an introduction to the philosophy, history, scope, and significance of the recreation and leisure field. An overview of the delivery of leisure services is explored with special consideration given to how such services impact the individual and society. Students will be exposed to a variety of career opportunities and professional affiliations associated with the leisure industry. An orientation to professional competencies in the field will also be addressed. Prerequisite: REC majors or Permission of Instructor; prerequisite or co-requisite: ENG 103.

REC 102 Activity Planning I (3) This course provides students with opportunities to develop, lead, organize, and evaluate games and activities for elementary- to middle school-aged participants. Behavior management strategies are emphasized as they apply to the developmental stages of the population being served. Students are required to compose lesson plans with outcome objectives and develop safety plans based on risk assessment. On- and off-campus experiences in activity leadership are required. Prerequisite: REC majors or Permission of Instructor.

REC 103 Recreation Skills II (3) This course focuses on the development of skills necessary for the planning, programming and leading of social recreation activities for teens through adult life stages. Emphasis will be placed on the skills and progression of social games, board games, mental games, tournaments, and overall small and large event planning. Prerequisite: REC majors or Permission of Instructor.

REC 104 Group Leadership in Recreation (3) The foundations of recreation leadership are discussed and the student is expected to develop a leadership philosophy. This course is designed to cover the dynamics of group interaction and the role the recreation leader plays in leading groups. Experiential activities will be used to demonstrate group dynamics and assist the student in analyzing recreation behaviors, participant motivations, and participant management. Prerequisite: REC majors or Permission of Instructor.

REC 105 Recreational Aquatics (1) An aquatic overview designed to acquaint the student with various forms of water activities in, on, and about the water. Includes American Red Cross basic water safety, adapted aquatics, water sports and games, scuba, and water exercises. Prerequisites: REC majors or Permission of Instructor; Proficiency Test in Swimming.

REC 201 Team Sports: Teaching and Officiating (2PE) An in-depth study of individual skills, rules, strategy, and officiation in each of the following team sports: soccer, basketball, volleyball, and
softball. Prerequisite: REC majors or Permission of Instructor.

RET 204 Outdoor Recreation (4) A study of the scope and history of the outdoor recreation movement including techniques for programming, and practices for education, in, for, and about the outdoors. Students are required to attend two camp outings during the semester which provide practical camping and outdoor recreation experiences. Additional fee required. Prerequisite: REC majors or Permission of Instructor.

RET 207 Expressive Arts in Recreation (3) This course is a study of the basic fundamentals of music and dance theory relative to recreational programming. Topics are designed to give the student the basic skills and working knowledge of creating, organizing, and implementing programs which incorporate expressive arts in a variety of recreation settings. Rhythmic activities and resource development are introduced to assist the student in gaining an appreciation for expressive arts as a contributor to productive leisure and recreational experiences. Prerequisite: REC majors or Permission of Instructor.

REC 253 Recreation Programming: Issues in Diversity and Inclusion (3) In preparing for recreation programming in a variety of environments with diverse populations, students will examine diversity in recreation programming, considering recognition and respect for differences in race, ethnicity, class, gender, and sexual orientation. The characteristics and abilities of people with disabilities will be analyzed and experienced through community involvement. Prerequisite: REC majors or Permission of Instructor.

Respiratory Care

FOR MORE INFORMATION, CONTACT THE RESPIRATORY CARE DEPARTMENT IN FERRANTE HALL, ROOM F267, (315) 498-2458.

RET 101 Medical Physics I (1) Addresses the physical principles which apply to respiratory therapy equipment and procedures, including gas properties and laws, heat and humidity; and physical principles which apply to ventilation and external respiration. Prerequisite: RET matriculation or Permission of Department.

RET 102 Mechanics of Disease (2) Introductory pathology, including medical terminology, general principles of disease, and overview of common diseases encountered in the hospitalized patient. Prerequisite: RET matriculation or Permission of Department.

RET 103 Respiratory Physiology (3) Basic function of the respiratory system, including thoracic, pulmonary, and cardiovascular anatomy; mechanics of ventilation; pulmonary perfusion; gas exchange and transport; control of respiration; and introduction to acid/base interpretation. Prerequisite: RET matriculation or Permission of Instructor.

RET 105 Respiratory Care Practice I (2) Basic respiratory care procedures, including patient assessment, gas delivery, bronchial hygiene therapy, and respiratory pharmacology. Complements the clinical sequence. Prerequisite: RET matriculation or Permission of Department; co-requisite: RET 105L.

RET 105L Respiratory Care Practice Lab (1) This course provides laboratory practice in basic respiratory care procedures, including patient assessment, oxygen and aerosol delivery, bronchial hygiene and isolation techniques. Two laboratory hours per week. Co-requisite: RET 105.

RET 118 Clinical Internship I (3) Supervised clinical practice in basic patient care techniques in the hospital setting. Prerequisite/co-requisite: RET matriculation or Permission of Department.

RET 125 Respiratory Care Practicum (1) Basic care of airways, ECG interpretation, arterial blood gas interpretation, chest radiograph interpretation and pulmonary function testing. Prerequisite: All RET courses numbered 118 and below; co-requisite: RET 125L.

RET 125L Respiratory Care Practice Lab (1) This laboratory course allows the student practice in various clinical techniques: airway care, arterial sampling, simple spirometry and assessment of pulmonary reserve. Prerequisite: All RET courses numbered 118 and below; co-requisite: RET 125.

RET 126 Mechanical Ventilation I (2) Introduction to mechanical ventilation, emphasizing operation and application of common ventilators. Lecture. Prerequisite: All RET courses numbered 118 and below; co-requisite: RET 126L.

RET 126L Mechanical Ventilation Laboratory (1) This course provides laboratory practice for setting up many different types of mechanical ventilators. Prerequisite: All RET courses numbered 118 and below; co-requisite: RET 126.

RET 128 Freshman Clinical II (4) Supervised laboratory and hospital practice in basic intensive care techniques, including ventilator management, airway care, arterial blood sampling, electrocardiography, phlebotomy and equipment maintenance. Prerequisite/co-requisite: All RET courses numbered 126 and below.

RET 130 Respiratory Care of the Neonate (1) This course examines the gestational development and evaluation of the fetus, cardiopulmonary transition at birth, evaluation of the newborn, oxygen administration, mechanical ventilation, bronchial hygiene, airway care and cardiopulmonary resuscitation of the newborn. Prerequisite: RET 128 or Permission of Department.

RET 134 Respiratory Disease (3) Etiology, pathophysiology, clinical and laboratory presentation, and usual treatment of respiratory disorders in adults, children, and newborns. Prerequisite: RET 128 or Permission of Department.
RET 139 Freshman Clinical III (4) This clinical course gives the respiratory care student extensive experience working in the adult intensive care and pediatric units. Includes basic respiratory care, ventilator monitoring, blood gas analysis and airway care. Advanced concepts in cardiopulmonary monitoring are covered. Prerequisite: RET 128.

RET 142 Home Care of the Respiratory Patient (1) Addresses the care of both the pediatric and adult respiratory patient in the home including oxygen administration, apnea monitoring, sleep apnea therapy, adjunctive modalities, mechanical ventilation, psychosocial issues, discharge planning and pulmonary rehabilitation. Prerequisite: RET 128 or Permission of Department.

RET 144 Applied Physiology (1) This course covers the application of respiratory physiology to the clinical setting, inclusive of gas transport, gas exchange, tissue oxygenation, and ventilation/perfusion abnormalities. Basic arterial blood gas interpretation and clinical mathematical calculations are also included. Prerequisite: RET 103, Permission of Instructor.

RET 145 Respiratory Care Seminar I (1) Designed to provide a dynamic forum for lecture presentation and discussion of current topics of special interest to the future Respiratory Care Practitioner. Topics will be selected from areas of interest that are not included in more traditional core courses. CRT (NBRC) exam matrix will be reviewed in detail. Prerequisite: RET matriculation or Permission of Department.

RET 205 Cardiovascular Physiology and Disease (3) Anatomy and function of the cardiovascular system, cardiovascular disease, assessment and diagnostic techniques, and care of the patient with cardiovascular disorders. Prerequisite: All courses numbered RET 139 and below or Permission of Instructor.

RET 206 Acid-Base Physiology (3) Regulation of acid-base balance in the body, with emphasis on the interpretation of acid-base disorders, fluid and electrolyte balance, and their inter-relationship. Prerequisite: RET 103 or Permission of Department.

RET 207 Diagnostic Techniques (3) Theory, significance, and methodology of various diagnostic studies used in the assessment of pulmonary function. Techniques discussed include basic spirometry, flow/volume tests, lung volume determination, diffusion capacity, tests of small airways disease, nutritional assessment and sleep disorders. Prerequisite: All 100-level RET courses or Permission of Department.

RET 211 Respiratory Care Seminar II (1) This course is designed to assist the student in developing techniques to diagnose and treat patients with cardiopulmonary disease utilizing instructor guided review of the WRRT (NBRC). Students will be required to complete a self-assessment WRRT exam. Other topics (ACLS, smoking cessation) will be covered as time permits utilizing computer simulations. Prerequisite/co-requisite: RET 213.

RET 213 Sophomore Clinical Internship I (3) This clinical course gives the respiratory care student clinical experience in caring for neonatal patients and adult patients with chronic respiratory disease. It includes observation, rotations in sleep disorders, and pulmonary rehabilitation. Prerequisites/co-requisites: RET 205, 206 and all 100-level RET courses.

RET 214 Sophomore Clinical Internship II (3) Clinical application of homodynamic and other cardiopulmonary monitoring; also, practice in the methodology of pulmonary function testing. Seminars include lectures on the various observation rotations. Prerequisite: all 100-level RET courses; prerequisites/co-requisites: RET 205 and 206.

Science – Physical Science

SCI 100 Meteorology (3) This is an introductory meteorology course designed to conceptually explore the principles and processes of weather. Students will study the fundamental principles of atmospheric structure and composition, radiation and energy as they relate to the Earth-Atmosphere system, air temperature, atmospheric moisture, and air pressure. The course investigates processes that cause fog, clouds, and precipitation. Students are provided with a detailed study of wind and pressure systems around the world, as well as middle latitude and tropical weather phenomena such as air masses, cyclones, tornadoes and hurricanes. Satisfies the science elective requirement of the Math/Science curriculum and also satisfies the science requirement of those curricula which require science. Three class hours or equivalent per week.

SCI 100L Meteorology Lab (1) This optional lab course is designed to increase the students’ understanding of meteorology and dynamic characteristics of the atmosphere covered in SCI 100 Meteorology, by challenging them with conceptual and mathematical analyses and interpretation exercises. It should be taken concurrently with SCI 100 or in a subsequent semester upon successful completion of that lecture course. It is intended for those who want a deeper understanding of meteorology and/or those students who have a laboratory science requirement to satisfy. One two-hour laboratory session per week. Prerequisite: MAT 087 or higher; prerequisite/co-requisite: SCI 100.
Sociology
FOR MORE INFORMATION, CONTACT THE SOCIAL SCIENCES DEPARTMENT IN MAWHINNEY HALL, ROOM M380, (315) 498-2301.

SOC 103 Introductory Sociology (3) This course is an introduction to the broad range of topics encompassed in the “science of society”. Students will be exposed to key sociological theories, as well as major sociological concepts such as culture, social structure, socialization, deviance, and social institutions, and social inequalities such as social class, race/ethnicity, and gender. Examples will be drawn from various cultures within the United States and will also be drawn from other contemporary societies. No prerequisite.

SOC 183 Popular Culture (3) This course is an analysis of popular culture. It will examine the role of popular culture in society. It will further examine how the nature of popular culture is shaped by mass media organizations and how popular culture, in turn, shapes the mass media, our perceptions of ourselves, and society. The course will explore various mediums of popular culture: print media, radio, television, films, advertising, and/or popular music. The student will use critical analysis to explore these mediums. No prerequisite.

SOC 203 Sociology of Gender Roles (3) A sociological analysis of male and female sex roles in contemporary American society. The development of sex roles within the individual and within the society will be explored. This course discusses the impact sex roles have on the lives of men and women in the areas of socialization, education, work, marriage, families, and human relationships. Sexual prejudices and sexual discrimination will be explored, including their impact on both the individual and society. The ramifications of changes in sex-role definitions for both the individual and society will also be discussed. Prerequisite: SOC 103 or Permission of Instructor.

SOC 204 Social Problems (3) A study of selected social problems which could include poverty, race relations, violence, drug addiction, delinquency, crime, urbanization, or others. Emphasis is on understanding the basic sociological concepts and theories as applied to modern social problems. Prerequisite: SOC 103 or Permission of Instructor.

SOC 207 Sociology of Deviance (3) Just as “beauty is in the eye of the beholder,” so deviance depends on the viewpoint of the observer. This course is designed to give the student a general perspective on the “other side” of human behavior by providing examples of particular theories about deviant behavior and examples of research on deviance. Its emphasis is on certain patterns of deviant behavior such as juvenile delinquency, crime, homosexuality, prostitution, suicide, alcoholism, drug addiction and “mental illness”. Prerequisite: SOC 103 or Permission of Instructor.

SOC 209 Death and Dying (3) An interdisciplinary investigation of death and dying, emphasizing the sociological perspective. Dying and death are studied as social processes, focusing on the effects these processes have on the lives of individuals and on society. The course will investigate social roles and occupations related to death and dying, death rituals, how concepts of death affect the lives of individuals and of society, and the problem areas related to death and dying. The particular emphasis will be on death as a social phenomenon, shaping and being shaped by society.

SOC 211 Race and Ethnicity (3) The course provides macro-sociological and micro-sociological theories for understanding the social contexts of racial/ethnic relations in contemporary societies. The course will also examine prejudice, discrimination, ethnocentrism, racism, segregation, ethnoviolence, and the social factors that influence the participation of racial/ethnic minority groups in American institutions. While the course will focus on American society, it will not preclude comparison with other contemporary multi-racial/ethnic societies.
soc 213 international development and change (3) recent sociological analysis has examined the world as a global system characterized by its own political and economic structure, and a system of stratification different from the nation-states that divide the globe. this course seeks to introduce students to the nature of this system and discusses several issues that affect it. it also examines the belief systems that have traditionally shaped our ideas about international relationships and foreign peoples, as well as historical events that created global interdependence and inequality. topics covered include values and ideologies shaping american perceptions of the global system, historical background of the global system, global stratification and inequalities, and value choices for building a new global system.

soc 214 contemporary global issues (3) an interdisciplinary course which explores contemporary global issues. it surveys themes related to social, political, economic, and cultural processes; global linkages/interdependencies; and power relations that connect individuals, communities, groups, states, and regions across the globe. it examines the values and visions emerging from regional perspectives that lead to conflict and/or cooperation in the international system. it contrasts the increasingly complex problems faced by different regions with the growing integration of the global economy. open to all interested students. required course for all students pursuing the international studies concentration.

soc 215 sports in society (3) the course will explore the structural and cultural relationship of sport to society, paying particular attention to the issues of race, ethnicity, gender, social class, age, economics, and politics as they relate to sport. how sport parallels other social institutions such as the media, family, and schools (particularly college athletics) will be explored. an all-encompassing objective will be to examine how sport is a microcosm of society. by looking at sport we can also look at and learn about society.

spanish

for more information, contact the modern languages department in mawhinney hall, room m308, (315) 498-2305.

spa 101 elementary spanish i (3) this learner-centered course is designed for students with little or no previous knowledge of spanish. students acquire basic grammatical and lexical skills that will enable them to communicate in routine social or professional situations within an authentic cultural context. upon successful completion of spa 101, students may enroll in spa 102. this course also fulfills the global awareness requirement at onondaga.

spa 102 elementary spanish ii (3) this course is a sequel to elementary spanish i. it builds upon the basic grammatical, linguistic, communicative and cultural concepts learned in spa 101. upon successful completion of spa 102, students may enroll in spa 201. this course also fulfills the global awareness requirement at onondaga. prerequisite: spa 101, or two to three years of high school spanish, or permission of instructor.

spa 165 spanish for advanced beginners (3) this course is designed for students with some experience in spanish who feel they need a comprehensive review of the basic grammatical, linguistic and communicative structures covered in elementary-level courses prior to taking an intermediate level course. upon successful completion of spa 165, students may enroll in spa 201. this course also fulfills the global awareness requirement at onondaga. students may not receive credit for both spa 102 and spa 165. prerequisite: three years of high school spanish, or equivalent.

spa 201 intermediate spanish i (3) this dynamic course draws upon previously acquired knowledge, while introducing students to more complex grammatical and lexical structures to further develop communicative proficiency and cultural knowledge. the course is conducted mostly in spanish. upon successful completion of spa 201, students may enroll in spa 202. this course also fulfills the global awareness requirement at onondaga. prerequisite: spa 102, or spa 165, or four years of high school spanish, or permission of instructor.

spa 202 intermediate spanish ii (3) this course is a sequel to intermediate spanish i. it expands upon complex grammatical and lexical structures. it is conducted entirely in spanish and provides a solid foundation for advanced study. upon completion of spa 202, students may enroll in any intermediate-high level course. students who successfully complete the spa 202 level have fulfilled their language requirement for the a.a. in humanities and teacher prep programs. the three additional credits may be taken either as a language course or as a general elective. this course also fulfills the global awareness requirement at onondaga. prerequisite: spa 201, or five years of high school spanish, or permission of instructor.

spa 203 business spanish (3) at an intermediate-high level, this course will focus on the unique language and the culture pertinent to doing business with spanish people or with the spanish-speaking world. intensive work in conversation and composition. solid preparation in grammar recommended. class conducted entirely in spanish. prerequisite: spa 202 or equivalent.

spa 204 spanish literature: an introduction (3) at an intermediate-high level, this course will introduce students to literary concepts and literature from around the spanish-speaking world. intensive work in conversation and composition. solid preparation in grammar recommended. class conducted entirely in spanish. prerequisite: spa 202 or equivalent.
SPA 220 Spanish Communication Through Cinema (3) At an intermediate-high level, this course will focus on the diversity in language and culture of the Spanish-speaking world as represented in cinema. The course includes intensive work in conversation and composition. Solid preparation in grammar is recommended. This class is conducted entirely in Spanish. Prerequisite: SPA 202 or equivalent.

Surgical Technology

SGT 101 Introduction to Surgical Technology (3) An introduction to the field of surgical technology. Includes the study of medical legal aspects, ethical conduct, hospital policies, and preparations for the care of the surgical patient. Also includes clinical orientation sessions in the operating room setting at various hospitals in the community. Prerequisite: SGT major; co-requisites: SGT 101, 102, 103, and 103L.

SGT 102 Surgical Pharmacology (1) Studies dosage equivalents and terminology, proper procedures for handling intra-operative drugs, principles of drug usage, and the principles and effects of anesthesia administration. Prerequisite: SGT major; co-requisites: SGT 101, 103, and 103L.

SGT 103 Principles of Surgical Technology (3) An introduction to surgical services and aseptic techniques. Topics will include: instrumentation, suture types and technique, scrubbing and preparing the sterile field, types of instruments, and uses of other operating room equipment. Prerequisite: SGT major; co-requisites: SGT 101, 102, and 103L.

SGT 103L Principles of Surgical Technology Lab (2) A lab to complement SGT 103 Principles of Surgical Technology. The student will be introduced to the techniques and equipment that are an integral part of his/her training as a Surgical Technologist. Prerequisite: SGT major; co-requisites: SGT 101, 102, and 103L.

SGT 105 Clinical Practice I (5) Clinical application of basic surgical technology procedures. Includes the preparation of equipment and the practice of passing instruments and sutures during actual surgical procedures. Prerequisites: SGT 101, 102, 103, and 103L, and BIO 171.

SGT 111 Surgical Procedures (5) A course detailing surgical procedures and the part the surgical technologist plays. Common surgical procedures are explained for each major body system. The student learns how to assist the physician during each specific procedure. Prerequisites: SGT 101, 102, 103, and 103L, and BIO 171.

SGT 115 Clinical Practice II (6) A continuation of SGT 105. More advanced application of clinical procedures in the operating room. Prerequisites: SGT 105 and 111, and BIO 172.

Telecommunications

TEL 241 Telecommunications I (4) This is the first course in a four-course sequence. Topics include the techniques, principles and terminology of Voice Communications; public and private telecommunications networks; telecommunications equipment; switching, multiplexing, modulation and transmission technology. Four hours of integrated lecture/laboratory environment. Prerequisite: ELT 131; co-requisite: ELT 141 or ELT 131 or Permission of Instructor.

TEL 242 Telecommunications II (4) This course is designed to train students in the organization, architecture, setup, maintenance, hardware and software aspects of local area networks. Topics include: introduction to networks, types and characteristics of different network architectures and network topologies, intra- and inter-network devices, network operating systems, peer-to-peer and client/server environments, LAN setup and maintenance, network printing, and internal web servers. A hands-on approach will be taken, with team projects throughout.

TEL 243 Telecommunications III (4) This course is designed to train students in the organization, architecture, setup, hardware and software aspects of interconnecting local area networks (LANs) and wide area networks (WANs). Topics include: intra- and inter-network devices, network operating systems, client/server environments, LAN / WAN setups, network printing, and internal web servers. A hands-on approach will be taken, with team projects throughout.

TEL 244 Telecommunications IV (4) A survey of current and emerging technologies in Telecommunications will be presented. Lectures, interactive learning, demonstrations, and site visits will be employed. Prerequisite: TEL 243 or Permission of Instructor F/S (S).

Writing Skills Tutorial

WSC 099 Writing Skills Tutorial (1EQ) A developmental, compensatory program in writing, employing one-on-one tutoring and emphasizing tasks, feedback, mastery, and transfer. Focus includes both prerequisite skills and more complex skills taught formally in other English courses. Students may enroll only through the Writing Skills Center. Equivalent credit is determined by the professional staff, subject to the approval of the Writing Skills Center coordinator. Students may work progressively to build a variety of skills over several semesters, but are limited to a total of 6 equivalent credits during the course of their studies at Onondaga Community College.