

## ACCOUNTING

### ACC 004 CRSE SPCFC STDY SKILLS-ACC104

1 Lecture 0 Lab 1 Credit Hours(s)

ACC 004 is a study skills course designed for those students who require support in ACC 104. Taught by the instructor of ACC 104, with which it is content correlated, ACC 004 will include practical work with notetaking, textbook mastery, exam preparation and test taking techniques, as well as specific strategies necessary to the successful study of accounting.

NOTE: ACC 004 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

### ACC 100 ACCOUNTING INTRODUCTORY SEM

1 Lecture 0 Lab 1 Credit Hours(s)

This course is intended to provide Accounting, Bookkeeping and BAT students with an opportunity to learn and practice skills necessary to be successful in their respective program. This course will focus on personal goals and development, career planning, study skills, curriculum management and College resources.

### ACC 101 PRINCIPLES-FINANCIAL ACC I

3 Lecture 0 Lab 3 Credit Hours(s)

The primary purpose of this course is to enable students to analyze, record, classify, summarize, and interpret accounting data. Topics include: the accounting equation; accounting statements and reports prepared according to generally accepted accounting principles; the accounting cycle; deferrals and accruals; accounting for merchandising businesses, and inventories. This course is not intended for Business Administration-Transfer students.

### ACC 102 PRINCIPLES OF ACCOUNTING II

4 Lecture 0 Lab 4 Credit Hours(s)

The primary purpose of this course is to enable students to analyze, record, classify, summarize, and interpret accounting data for sole proprietorships, partnerships, and corporations. Topics include: liabilities; partnership formation, division of earnings, and changes of ownership; corporations-capital transactions, income taxes and business decisions, financial reporting, ratio analysis, earnings measurement; the statement of cash flows; and an introduction to managerial accounting.

Prerequisite: ACC 101 with a C or better.

### ACC 104 FINANCIAL ACCOUNTING

4 Lecture 0 Lab 4 Credit Hours(s)

The primary purpose of this course is to enable students to analyze and interpret accounting data. Topics include: the accounting equation; accounting statements and

reports; the accounting cycle; deferrals and accruals; and the recognition and measurement of financial statement information including receivables, inventories, plant assets; long-term liabilities, stockholders equity, and financial ratios.

Prerequisites: MAT 091 or MAT 092 or higher

### ACC 110 PROFESSIONAL RECORDKEEPING

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed to prepare the student with the skills necessary for the day-to-day handling of common financial functions. Topics include: basic bookkeeping procedures and preparation of financial statements, and payroll.

### ACC 204 MANAGERIAL ACCOUNTING

4 Lecture 0 Lab 4 Credit Hours(s)

This course provides an introduction to the accounting data and techniques used by internal managers to identify and analyze the available alternatives and guide them to a course of action that is most likely to yield the optimum solutions for their organizations. The purpose of the course is to show what kind of accounting information is needed, where this information can be obtained and how this information is used by managers as they make decisions about their planning, directing, and controlling operations function.

Prerequisites: ACC 102 with a grade of C or better or ACC 104 with a grade of C or better.

### ACC 205 COMPUTERIZED ACCOUNTING APPL

2 Lecture 1 Lab 2 Credit Hours(s)

The primary purpose of this course is to enable students to use computer applications in an accounting environment. Students will use Quickbooks Pro to collect and summarize accounting information. In addition, students will learn how to create many different reports that are useful when managing a business.

Prerequisite: ACC 101 or ACC 104

### ACC 213 ACCNTNG SYSTEMS & THE COMPUTER

3 Lecture 0 Lab 3 Credit Hours(s)

The purpose of this course is to familiarize the student with accounting systems and procedures with emphasis on computerized accounting systems, to acquaint the student with fundamental computer concepts and terminology, to give students hands-on computer experience through the preparation and processing of accounting related programs and software and to reinforce accounting theory and integrate it with computer practice.

Prerequisites: ACC 101 or ACC 104

### ACC 221 INTERMEDIATE ACCOUNTING I

4 Lecture 0 Lab 4 Credit Hours(s)

This course provides an in-depth study of financial accounting concepts and procedures. The following topics will be covered: the accounting environment and accounting concepts and theory; statement of income and retained earnings; balance sheet and statement of cash flows; the time value of money; cash, temporary investments and receivables; inventories, and plant assets.

Prerequisite: ACC 104 or ACC 102

#### ACC 241 INCOME TAX PROCEDURES

3 Lecture 0 Lab 3 Credit Hours(s)

A study of the federal income tax laws as they affect individuals. Principal topics are returns, rates, exemptions, income, deductions and losses, itemized deductions, business expenses and losses, cost recovery, employee expenses, special methods for computing tax, tax credits, property transactions - basis determination, non-taxable exchanges, capital gains and losses and depreciation recapture.

Prerequisite: ACC 104 or ACC 101 or permission of ACC Program Chair.

#### ACC 260 INTERNSHIP IN ACCOUNTING

1 Lecture 8 Lab 3 Credit Hours(s)

This course is designed for students participating in a cooperative education work experience. It is open to matriculated ACC students. Students are placed with selected cooperative employers for a specific number of hours (minimum 120). They participate in weekly seminars and submit a paper or report related to the work experience. A written evaluation by the employer is also submitted.

Note: Sophomore status required.

Prerequisite: Permission of department.

#### ACC 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of accounting or related areas. The student's time commitment to the project will be approximately 35 - 50 hours.

#### ACC 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to ACC 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### ACC 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ACC 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### AIR CONDITIONING

#### ACR 101 AIR CONDING & REFRGRTN I

3 Lecture 6 Lab 5 Credit Hours(s)

This course will introduce the student to the basic theory of operation of simple refrigeration and air conditioning systems, heat transfer, materials, tools, installation techniques, and practices. Other topics included are measurements, heat and temperature, refrigerants and mechanical/electrical components. Personal and equipment safety will be stressed.

Prerequisite: None, but PHS 115 is recommended.

#### ACR 102 AIR CONDING & REFRGRTN II

3 Lecture 15 Lab 8 Credit Hours(s)

This course is a continuation of ACR 101. The student will work with a variety of complex and larger cooling and heat pump systems. These systems will use combinations of controls to operate components in a sequential manner. The design of such control systems and their construction are included. In addition, special systems such as automatic ice machines and self-defrosting equipment will be used to develop trouble shooting techniques and problem solving skills. Students will be prepared for and given the opportunity to take the technician certification examination as specified by the Clean Air Act. Those who pass the exam will be duly certified. Personal and equipment safety will be stressed.

Prerequisite: ACR 101 or permission of the instructor.

#### ACR 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of air conditioning and refrigeration or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### ACR 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to ACR 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### ACR 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ACR 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## **ALLIED HEALTH**

### **AHS 100 ALLIED HEALTH INTRO SEMINAR**

1 Lecture 1 Lab 1 Credit Hours(s)

This course will introduce the students enrolled in each of the Allied Health Programs to their specific curriculum and the career goals available to them. Students will focus on personal development and effective strategies for successful completion of their specific program. In addition, students will examine the health delivery system and the many challenges inherent in this system.

## **ARCHITECTURAL TECHNOLOGY**

### **ARC 100 INTRO TO ARCHITECTURAL DESIGN**

1 Lecture 2 Lab 2 Credit Hours(s)

ARC 100 is an introductory course in architectural design intended for the part-time student. The course will explore basic concepts of spatial design in architecture, explain the principles of orthographic drawing and develop designs for small-scale projects. Students who have satisfactorily completed both ARC 100 and ARC 101 may request a waiver for ARC 103 in the Architectural Technology Program.

### **ARC 101 INTRO ARCHTCTL WKG DRWG I**

1 Lecture 2 Lab 2 Credit Hours(s)

ARC 101 is an introductory course in architectural working drawings intended for the part-time student. The course will provide instruction in construction techniques and materials and will teach the student how to prepare basic construction documents for a wood-frame building. ARC 100 is not a prerequisite for ARC 101. Students who have satisfactorily completed both ARC 100 and ARC 101 may take ARC 110 in the Architectural Technology Program.

### **ARC 103 BASIC ARCHITECTURAL DRAWING**

1 Lecture 4 Lab 3 Credit Hours(s)

The basic concepts of drawing lines, lettering, use of instruments, orthographic projection, and pictorials. Plans, elevations, and sections of a single building are prepared. Building materials and construction are included. Emphasis is placed upon drawings that reproduce with a maximum of clarity and detail. Prerequisite: Math A Regents with a grade of 65 or higher or concurrent enrollment in Mat 131 or higher.

### **ARC 104 INTRO TO COMPUTER GRAPHICS**

0 Lecture 3 Lab 1 Credit Hours(s)

A required introductory course for Architectural Technology students. Students will gain hands-on experience with AutoCAD, the computer graphics program used in all Engineering Department programs.

### **ARC 105 BLDG MATERIALS/CONST I**

2 Lecture 2 Lab 3 Credit Hours(s)

The study of wood frame construction and materials. Topics include foundations, framing methods, and finish materials for interior and exterior use in wood frame buildings. The laboratory will introduce wood detailing and field applications.

Prerequisite: Math A Regents with a grade of 65 or higher or concurrent enrollment in MAT 131 or higher.

### **ARC 106 BLDG MATERIALS & CONST II**

2 Lecture 2 Lab 3 Credit Hours(s)

A continuation of ARC 105. Topics include masonry and steel in building construction, fabrication and utilization in the structural system, architectural detailing in masonry and steel, and an introduction to structural drawings and detailing.

Prerequisite: ARC 105.

### **ARC 107 INTRO ARCHTCTRL DESGN II**

1 Lecture 2 Lab 2 Credit Hours(s)

ARC 107 is the second part of an introductory sequence intended for the part-time student. The course will be concerned with the design and presentation of small commercial, institutional or industrial buildings of more than one story. Students who have satisfactorily completed both ARC 107 and ARC 109 may take ARC 203 and ARC 205 in the Architectural Technology Program.

Prerequisite: ARC 100 or ARC 103.

### **ARC 109 INTRO ARCHTCT WKNNG DRG II**

1 Lecture 2 Lab 2 Credit Hours(s)

ARC 109 is the second part of an introductory sequence in working drawings intended for the part-time student. The course will instruct the student in the development of architectural working drawings for multi-level commercial or institutional projects. Students who have satisfactorily completed both ARC 107 and ARC 109 may take ARC 203 and ARC 205 in the Architectural Technology Program.

Prerequisite: ARC 101 or ARC 103.

### **ARC 110 ARCHITECTUAL DRAWING**

1 Lecture 4 Lab 3 Credit Hours(s)

A continuation of ARC 103, including site study, use of local and state codes, and structural requirements. Students prepare a design analysis and a complete set of drawings for a small commercial building.

Prerequisites: ARC 103, 105.

### ARC 113 ARCHITECTURE INTRODUCTORY SEM

1 Lecture 0 Lab 1 Credit Hours(s)

The seminar will introduce the incoming student to the profession of architecture. The course will outline the history of architecture, the educational requirements for becoming an architect and the allied professions available to the graduate.

### ARC 122 ARCHITECTURAL PRESENTATION I

0 Lecture 4 Lab 2 Credit Hours(s)

A study of perspective, shades and shadows. Students prepare presentation drawings, plans, elevations, and perspectives of small-scale projects utilizing pencil, pen and ink.

### ARC 123 ARCHITECTURAL PRESENTN II

1 Lecture 3 Lab 2 Credit Hours(s)

An introduction to color in architectural presentation using colored pencils, felt tip pens and washes. The course will provide an introduction to the preparation of rendered plans, evaluations, and perspectives of medium scale buildings using both traditional and computer based drawing techniques.

Prerequisite: ARC 122.

### ARC 202 MECHANICS OF STRUCTURES

2 Lecture 0 Lab 2 Credit Hours(s)

A study of the elements of structures in architecture, using basic physical laws and intuitive reasoning as extended to the mathematical treatment of equilibrium in static structures.

Prerequisite: MAT 132 or higher.

### ARC 203 ARCHITECTURAL DESIGN

0 Lecture 6 Lab 3 Credit Hours(s)

Design projects with increasing complexity are selected throughout the semester and culminate in a moderately complex commercial building design project. Emphasis is placed on form, function and presentation of design. Students will work with computer assisted drawing equipment to prepare a set of design drawings. Students will prepare design models.

Pre-requisites: ARC 110 or permission of instructor

### ARC 205 WORKING DRAWINGS

1 Lecture 6 Lab 4 Credit Hours(s)

Working drawings are prepared for a small building such as a motel, clinic, community center, church or bank.

Prerequisites: ARC 110 and 106.

### ARC 207 STRUCTURAL ANALYSIS

3 Lecture 0 Lab 3 Credit Hours(s)

This subject includes the study of the stresses and strains that occur in structural members. Shear and bending diagrams, investigation and design of beams, and deflection of beams are included. Investigation is made of the design of simple steel and concrete beams.

Prerequisite: ARC 202.

### ARC 211 MECHANICAL & ELECTRICAL SYSTEM

3 Lecture 0 Lab 3 Credit Hours(s)

An introduction to environmental systems in buildings including: emphasizing major topics of illumination and heating and cooling; minor topics of plumbing; fire protection and life safety; electrical power; and acoustics.

An emphasis will be placed on active and passive energy efficiency and sustainable design.

3 Lecture 0 Lab 3 Credit Hours

### ARC 214 PROFESSIONAL PRACTICE

2 Lecture 2 Lab 3 Credit Hours(s)

A study of functions performed in the architect's office from the time an architect is commissioned to do a project until the owner assumes occupancy. Topics include contracts, specifications, estimating, organization, job administration and scheduling. An emphasis on cost estimating and computer assisted estimating is included.

Co-requisite: ARC 110 and ARC 106, or permission of instructor.

### ARC 216 DESIGN THEORY

2 Lecture 2 Lab 3 Credit Hours(s)

This course will provide the student with an opportunity to explore design based on movements in architecture and the theories that form the basis of architectural design, as defined by history, from antiquity to those of contemporary designers. The course exposes students to design problems and guides them through understanding architectural compositions and problem solving processes. Students analyze architecture and use this understanding to synthesize design solutions. Through the creative process, students begin the development of problem solving strategies associated with architectural design and implement them into a series of design projects.

### ARC 240 CAPSTONE PROJECT

1 Lecture 6 Lab 4 Credit Hours(s)

ARC240 is a culmination of the Architectural Technology student's studies at the college. Students will work in groups to develop a project from the project development phase through schematic design and design development phases through construction drawings. Both ARC and CNS students will work together for the first half of the semester. For the second half, ARC students will complete construction drawings for the project. CNS students will complete a partial set of the same building and a building materials takeoff of the building. Both groups of students

will prepare a booklet of product data sheets for their projects. Building types include small schools, apartment houses, office buildings, department stores, and dining halls. All of the drawings for this course will be prepared on the computer using the AutoCAD system.  
Prerequisite: ARC 205.

#### ARC 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Study plans will include research, analysis, and presentations or other projects, which advance the student's knowledge and competence in the field of architectural technology. The student's time commitment will be approximately 35-50 hours.

#### ARC 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to ARC 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### ARC 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ARC 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### ART

#### ART 100 VISUAL ART INTRO SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

This required course introduces students in the visual art programs to academic and career opportunities in the visual arts. The course will address the following topics: how to begin creating, preserving and documenting an art portfolio; career opportunities and internships; transfer opportunities; career options; student services; study skills including time management, research, writing, note and test taking, and presentation skills. This course is presented by art faculty, visiting professionals and alumni from various disciplines and specialties.

#### ART 101 HISTORY OF ART

3 Lecture 0 Lab 3 Credit Hours(s)

An introduction to Western art based on an aesthetic and historical evaluation of artists, styles and cultures from the prehistoric period to the 18th, 19th century. Work will be viewed through visual presentation and field trips to museums and exhibits.

#### ART 102 HISTORY OF MODERN ART

3 Lecture 0 Lab 3 Credit Hours(s)

The turn of the 20th century saw an explosion of changes which in turn redefined our visual vocabulary. This course

introduces the major artists and movements of 19th and 20th century western art. Avant Garde art of the 19th century, the rise of high modernism and its subsequent decline in the postmodern era will be examined. Issues considered are artistic intention, spirituality in art, the birth and development of abstraction, art with political agendas and the implicit historic contexts of modern art. Work will be viewed through slide presentation and videotape.

#### ART 103 ART OF CHINA, JAPAN AND INDIA

3 Lecture 0 Lab 3 Credit Hours(s)

The history of Chinese, Japanese, and art from India will be examined from prehistoric times to the present. Comparisons to the most familiar example of Western art will be offered whenever they add depth to the material. Various oriental media such as jade, lacquer and ivory calligraphy, landscape are studied in depth.

#### ART 104 FUNDAMENTALS OF ART

3 Lecture 0 Lab 3 Credit Hours(s)

This visual arts course is intended for non artists. Course content includes art throughout history, both Eastern & Western, providing global insight into various cultures and a core understanding of the visual language used to analyze techniques and materials used in painting, sculpture, and architecture. Class activities include viewing and analyzing images from the prehistoric period to modern day, attending field trips to museums and art exhibits, and keeping a written and visual journal documenting visual understanding of the art experiences explored in the course.

#### ART 110 TWO DIMENSIONAL DESIGN

2 Lecture 2 Lab 3 Credit Hours(s)

This foundation studio course addresses visual dynamics on the 2D picture plane. Through the design process students explore visual elements and principles of organization. Projects cover technical skills, idea generation and development, and presentation. This course will provide the student with at least 5 works for portfolio.

#### ART 111 THREE-DIMENSIONAL DESIGN

2 Lecture 2 Lab 3 Credit Hours(s)

This foundation studio course focuses on the visual dynamics and basic design issues that underlie three-dimensional works of art and design. Students will create three-dimensional projects using a variety of sculptural materials and methods that explore the formal elements and underlying design principles.

#### ART 112 DRAWING I

2 Lecture 2 Lab 3 Credit Hours(s)

This course is an introduction to the basic principles and practices of drawing. Students will complete a variety of

projects that emphasize observation, line, value, shape, texture, picture plane organization, perspective, use of materials, methods for developing drawings from initial sketch to finished drawing, and discussion of course concepts.

#### ART 113 DRAWING II

2 Lecture 2 Lab 3 Credit Hours(s)

This course is an expansion of Drawing I's principles, practices and techniques with a focus on drawing the figure in context. Students complete a variety of projects that emphasize observation, line, value, shape, texture, picture plane organization, foreshortening, use of materials, methods for developing drawings from initial sketch to finished drawing, and discussion of course concepts.

Prerequisite: ART 112 with a grade of C or better

#### ART 120 COLOR THEORY AND PAINTING

2 Lecture 2 Lab 3 Credit Hours(s)

This foundation studio course addresses color relationships, interactions and use in visual compositions. Pre- or Co-requisite: ART 110.

#### ART 140 GRAPHIC DESIGN I: DESIGN W/ DI

2 Lecture 2 Lab 3 Credit Hours(s)

This course is an introduction to history of digital media and the practical applications of design using digital images. Assignments build visual discernment, conceptual thinking, awareness of design issues and some design history. Using Photoshop, students learn to work with images and basic typography in increasingly complex design formats, and complete a design portfolio of 4-5 pieces.

Pre-requisites: ART 110 with a grade of C or better.

#### ART 141 CALLIGRAPHY I

2 Lecture 2 Lab 3 Credit Hours(s)

The course covers the study and practice of lettering using the broad pen and pencil to develop original calligraphy and calligraphy for reproduction.

#### ART 145 GRAPHIC DESIGN II: LAYOUT/TYPGRAPHY

2 Lecture 2 Lab 3 Credit Hours(s)

This course is an introduction to typography. This course includes the history of type, typeface design, type anatomy and classifications, designing with text and display type, and basic issues of print production. Using InDesign, the industry-standard page layout program, basic black and white typographic explorations progress to more complex color assignments. A final portfolio will be submitted. Note: A familiarity with the Mac platform is recommended before taking this course.

Pre-requisite: ART 140

#### ART 147 GRAPHIC DESIGN III: DESIGN/ILL

2 Lecture 2 Lab 3 Credit Hours(s)

This course is an introduction to resizable (vector-based) graphics used in design applications such as logos, technical illustrations, diagrams, packaging, signage, animation, web and designing for mobile devices. Using Adobe Illustrator, students explore conceptual solutions while working with lines, shapes and paths in various graphic explorations. A final portfolio will be submitted. Note: It is recommended that students take ART 140 and 145, and be familiar with the MAC platform prior to taking the course.

Pre-requisite: ART 110 with a grade of C or better.

#### ART 148 FASHION ILLUSTRATION & DESIGN

2 Lecture 2 Lab 3 Credit Hours(s)

This course addresses fashion design and illustration throughout history, and offers students specific techniques with which to render the figure and clothing as they develop their own distinctive visual drawing style. Through the design process, students explore the elements of fashion and incorporate them into descriptive, illustrative, and innovative designs that complement the human figure. Projects cover technical skills, idea generation and development, and presentation. This course will provide the student with at least 5-10 works for portfolio.

Prerequisite: ART 112

#### ART 150 TRADITIONAL PHOTOGRAPHY I

2 Lecture 2 Lab 3 Credit Hours(s)

This is an introduction to the medium through the use of manual film cameras, light meters, black and white film processing and print enlarging. Craftsmanship is stressed. Students must have a manual film camera with manually adjustable lens openings, shutter speeds, and focus, as well as a working built in light meter. Photography courses require a substantial amount of student-purchased supplies, which may cost \$200 or more, in addition to camera and text.

Note: This course may be more suitable to those considering further work in photography, requiring a traditional film camera. For those wishing to take an introductory course that is digital and does not use film, please consider ART 157 Digital Photography 1.

#### ART 151 TRADITIONAL PHOTOGRAPHY II

2 Lecture 2 Lab 3 Credit Hours(s)

This course provides further study in photography that originates with traditional photographic film whether black-and white, or color. Using more advanced camera and darkroom techniques, visual and technical craft are emphasized. Students need to have a film camera with manually adjustable lens openings, shutter speeds,

and focus, as well as a working built-in light meter. There is no use of a "wet" photography lab for color, only black-and-white. Student must have color films processed commercially at their own expense. Photography courses require a substantial amount of student-purchased supplies, which may cost \$200 or more, in addition to camera and text.

Prerequisite: ART 150 with a grade of C or better

#### ART 153 LIGHTING FOR THE VISUAL ARTS

2 Lecture 2 Lab 3 Credit Hours(s)

Light as a basic essential principle common to all photography is explored, with an emphasis on studio set ups. Students will learn to use tungsten quartz constant source lighting as well as electronic flash (strobe) and natural light to illustrate basic lighting techniques. A final portfolio of photographs will be produced. Additionally there will be instruction and demonstration of location lighting techniques. This course is intended for students interested primarily in photography, even though the principles taught are relevant to drawing, painting, video production, and filmmaking.

Prerequisite: ART 150 or ART 157 with a grade of C or better

#### ART 157 DIGITAL PHOTOGRAPHY I

2 Lecture 2 Lab 3 Credit Hours(s)

The course introduces photography based on digital image reproduction. Students will create direct files using a digital camera and reproduce prints using grade inkjet printers. Emphasis is on understanding color and black and white photography as a powerful creative tool in commercial and fine art photography. No prior study of photography is required. It is highly preferable to be able to shoot in the RAW mode rather than just JPEG.

Note: Students must have access to a suitable digital camera with manually adjustable lens openings and shutter speed settings. This course is recommended as a first photo course for students who are not planning to make photography their career or as an auxiliary course for students who have taken or will take traditional/wet photography courses.

#### ART 161 FOUNDATIONS OF ANIMATION

2 Lecture 2 Lab 3 Credit Hours(s)

An introductory course covering various aspects of the history, theory and practice of animation. This course includes a broad overview of traditional and computer animation techniques from the earliest experiments until today. Studio sessions of this introductory course will emphasize creating computer 2-D animations using the popular animation program, Flash.

#### ART 172 BASIC CERAMICS

2 Lecture 3 Lab 3 Credit Hours(s)

This course is an introduction to the nature and properties of clay. It provides students a range of experience in working with clay, including hand building and throwing techniques, firing processes and glaze application techniques. It provides a context for understanding historical and contemporary ceramics.

#### ART 209 TIME BASED MIXED MEDIA

2 Lecture 2 Lab 3 Credit Hours(s)

This is an advanced art/communications studio course that focuses on integration and experimental use of current studio art practices (painting, drawing, photography, ceramics, installation, sculpture), digital media, and the communication media arts. Exploration and innovative use of video and sound are integral components of the course. Students should have basic computer skills and a working knowledge of digital video media.

Prerequisites: ART 110, ART 111, or COM 110

#### ART 222 WATERCOLOR

2 Lecture 2 Lab 3 Credit Hours(s)

The course includes painting on paper with water-based media including gouache, watercolor, and acrylic. Emphasis is placed on working from observation, exploration of materials and techniques, integration of wet and dry media, concept development, and presentation of completed works.

Prerequisite ART 120 with a grade of C or better.

#### ART 226 PAINTING

2 Lecture 2 Lab 3 Credit Hours(s)

This is a painting course designed for students who have completed fundamental studies of 2D design, drawing, and color theory. Emphasis is on working from observation, exploring color and technical application of acrylic or oil paints, and expressing ideas through concept and thematic development.

Pre-requisites: ART 110, ART 112 and Art 120.

#### ART 242 GRAPHIC DESIGN IV: TYPE & COMP

2 Lecture 2 Lab 3 Credit Hours(s)

This course is an intermediate exploration combining typography with images and exploring page design. Students build on previous software and typographic skills to explore concept, audience and meaning in more complex typographic & ad-related design projects and formats. Use of the grid in page layout, communication issues, print production and a more sophisticated level of design awareness are emphasized. A portfolio of final work will be submitted, with the possibility of incorporating some interactivity.

Pre-requisites: ART 140 and ART 145

### ART 254 PHOTOJOURNALISM

2 Lecture 2 Lab 3 Credit Hours(s)

This course is an exploration of the photojournalistic approach. Emphasis is on producing, editing, and refining an in-depth photographic essay. The work of historic and contemporary photojournalists will serve as examples of the diverse approaches to photojournalism.

Prerequisite: ART 157

### ART 257 DIGITAL PHOTOGRAPHY II

2 Lecture 2 Lab 3 Credit Hours(s)

A continuation of ART 157, the course adds additional content related to digital photography. Students explore more advanced photo concepts for shooting and presentation. Using images the students shoot themselves, and tools found in Adobe Photoshop, students create photographic illustration and art which can include image modification, use of the smart file, advanced PhotoShop editing techniques, and multiple image compositing.

Prerequisite: ART 157 with a grade of 'C' or higher.

### ART 260 VISUAL ARTS INTERNSHIP

1 Lecture 8 Lab 3 Credit Hours(s)

This is a 135 hour internship in an approved area of the student's choice that will provide practical experience. It will be completed under the direct supervision of a full-time employee for 120 hours at the internship site, along with one-hour weekly meetings (15 hours) on campus with a faculty member at a time to be arranged. This may be done in any aspect of the visual arts: design, advertising, marketing, photography, art education, art gallery/museum work, studio assistant or other art-related industry. Students will keep a portfolio of work, a journal about the work experience, and submit a short paper at the end of the internship detailing their experience.

Pre-requisites: Art majors with a minimum of 32 credits and permission of department

### ART 264 WEB DESIGN

2 Lecture 2 Lab 3 Credit Hours(s)

This course is an introduction to the art of designing web sites. Students will be introduced to HTML markup language and software (such as Dreamweaver) for creating web pages, and techniques for designing web sites containing text and images. The emphasis will be on information structure, creation of design elements, and the creation of a web site that is easy to navigate and visually compelling. Students will learn to use HTML divs, tables, cascading style sheets, forms, and other components of web design. Students are recommended to take ART 147 prior to or at the same time as ART 264.

Prerequisites: ART 140 and ART 145.

### ART 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge in the field of art or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### ART 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to ART 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### ART 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ART 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### ART 274 CERAMICS: HAND BUILDING

2 Lecture 3 Lab 3 Credit Hours(s)

This course is a continued exploration of clay as it relates to hand built forms, building on basic skills gained in Basic Ceramics. Advanced hand building techniques, continued experimentation with glaze application, as well as an introduction to the chemistry and calculation of glazes and further development of students' understanding of historical and contemporary ceramics as it relates to the hand built form, will be the basis of this course.

Prerequisite: ART 172.

### ART 275 CERAMICS: WHEEL THROWING

2 Lecture 3 Lab 3 Credit Hours(s)

This course is a continued exploration of clay as it relates to wheel thrown forms, building on basic skills gained in Basic Ceramics. Advanced throwing techniques, continued experimentation with glaze application as well as an introduction to the chemistry and calculation of glazes and further development of students' understandings of historical and contemporary ceramics as it relates to the thrown form will be the basis of this course.

Prerequisite: ART 172.

## AMERICAN SIGN LANGUAGE

### ASL 101 AMERICAN SIGN LANGUAGE I

3 Lecture 1 Lab 3 Credit Hours(s)

This total immersion course adheres to the Functional-Notional Approach to second language acquisition,



which focuses on the communicative needs of people engaged in common everyday interactions. Functions that help students establish and maintain social relationships are emphasized. Sessions will introduce formal and informal registers in American Sign Language. Grammar and language structure are taught through meaningful and experiential activities, which adhere to research findings on the importance of incorporating facial grammar, mouth morphemes and non-manual signals in the early stages of learning American Sign Language as a second language. Students will progress in formulating ideas and engaging in conversations from concrete to abstract through role-playing in everyday interactions using basic total language concepts.

#### ASL 102 AMERICAN SIGN LANGUAGE II

3 Lecture 1 Lab 3 Credit Hours(s)

This is a total immersion course designed to help the student further enhance their communication and language skill by working with their pre-existing knowledge of American Sign Language structure and grammar.

Prerequisite: ASL 101 or permission of instructor after entrance evaluation of signing skills.

#### ASL 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience or other activities that advance the student's knowledge and competence in the field of American Sign Language or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### ASL 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to ASL 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### ASL 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ASL 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### **ASTRONOMY**

#### AST 131 SOLAR SYSTEM ASTRONOMY

3 Lecture 2 Lab 4 Credit Hours(s)

A survey of the solar system, including the earth-moon system, the planets and their satellites, asteroids, meteors, comets, and the nearest star, our sun. Study ranges

from a historical view of the universe to our modern day view of the planetary system as provided by optical and radio telescopes, spectrographic study and space exploration. Among topics to be considered are the nature of light and telescopes, planetary surfaces and atmospheres, the origin of the solar system and extraterrestrial life. Laboratory work is supplemented by field trips and celestial observations with the unaided eye and telescopes.

#### AST 132 ASTRONOMY OF STARS & GALAXIES

3 Lecture 2 Lab 4 Credit Hours(s)

This course is a study of the universe beyond the solar system. The course begins by developing the theory of stellar evolution from observations and physical principles and discussing the formation of stars, supernovae, pulsars, black holes, etc. The course then proceeds to examine interstellar matter and to deal with the evolution of galaxies. Finally, the course deals with the origins of the universe itself and examines the various scenarios about the future of the universe.

#### AST 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of astronomy or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### AST 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to AST 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### AST 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to AST 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### **AVIATION SCIENCE - PILOT**

#### AVI 100 AVIATION INTRODUCTORY SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

This course is designed for students in the aviation science curricula. The course will focus on personal development and effective strategies for successful completion of the degree requirements. Personal educational goals and curriculum management, transfer and employment

opportunities, technical skills and utilizing college and flight school resources will be examined in this seminar.

#### AVI 101 INTRODUCTION TO FLIGHT

4 Lecture 0 Lab 4 Credit Hours(s)

This course is a study of the required knowledge for a Private Pilot's license. Subjects covered in this course include: theory of flight, basic aerodynamics, airplane operation/system/performance, navigation, flight computations, communications, publications, regulations and basic emergency procedures. Students are provided the information necessary to complete the FAA Private Pilot Knowledge Exam for Airplane/SEL. This class will be successfully completed and a grade provided when the FAA written exam is passed or in class final exam is passed at the discretion of the instructor. The fee for the FAA written test is not covered in the course fee.

#### AVI 102 AVIATION HISTORY

3 Lecture 0 Lab 3 Credit Hours(s)

This course provides a general description of the entire field of aviation starting with the early achievements of flight and progressing through milestones to the present age. This course contains an overview of the governmental involvement with the aviation industry from establishing the postal routes, safety regulations, and airline subsidies through deregulation of the airline industry. This course includes the contributions to aviation by women, minorities, and other cultures. The introduction and development of power flight, from Zeppelins, Flying Boats, through the Boeing 777, and the X-30 Oriental Express and beyond is also explored. An extended field trip will be made to the Rhinebeck Aerodrome to see the aircraft from early years of flight.

#### AVI 104 INSTRUMENT FLIGHT

4 Lecture 0 Lab 4 Credit Hours(s)

This course is a study of the instrument flying techniques and procedures in conjunction with modern ILS, VOR, ADF, GPS, and radar facilities. The course includes the study of basic attitude instrument flying, instrument navigation procedures, holding, precision and non-precision approach and departure procedures and macro and micro-metrology and analysis. Students are provided the information necessary to complete the FAA Instrument Rating Knowledge Exam. This class will be successfully completed and a grade provided when the FAA knowledge exam is passed. The fee for the FAA written test is not covered in the course fee. Prerequisites: AVI101 or equivalent.

#### AVI 110 AVIATION LAW

3 Lecture 0 Lab 3 Credit Hours(s)

Course will cover the history of aviation law. The Code of Federal Regulations as they pertain to the aviation

community. Ecological concerns regarding aviation noise, noise abatement, and the role of the State and Federal Government. Liability issues and tort reform, as they pertain to private and commercial flight operations. Prerequisites: AVI 100 and AVI 102.

#### AVI 111 INTRO TO FLIGHT LABORATORY

0 Lecture 3 Lab 1 Credit Hours(s)

This course provides a student with the practical flight experience to acquire a Private Pilot's license. The primary flight training includes dual and solo flight time to meet FAA practical testing standards in such training as basic flight maneuvers, takeoff and landing, night flying and cross-country procedures. Minimum FAA flight training hours apply and students will, in most cases, exceed those minimum hours in order to meet practical test standards. Completion of the FAA knowledge exam is required for the certificate. The cost of flight school is considerable and is subject to change.

Prerequisite: FAA Second Class Medical Certificate (required), FAA First Class Medical Certificate (recommended); proof of US citizenship or completion of US Office of Homeland Security, Transportation Security Administration background check requirements.

Co-requisite: AVI101 or equivalent.

#### AVI 114 INSTRUMENT FLIGHT LABORATORY

0 Lecture 3 Lab 1 Credit Hours(s)

This course provides a student with the practical flight experience in an aircraft and an approved flight training device to acquire an Instrument Rating. The primary instrument flight training includes dual flight time to meet FAA practical testing standards in such training as attitude instrument flying, departure, enroute and approach procedures in the instrument flight environment, instrument night flying and cross-country procedures. Minimum FAA flight training hours apply and students will, in most cases, exceed those minimum hours in order to meet practical test standards. Completion of the FAA knowledge exam is required for this certificate. The cost of flight school is considerable and is subject to change.

Prerequisite: AVI 101 and AVI 111 (Introduction to Flight Lab); FAA Second Class Medical Certificate (required); FAA First Class Medical Certificate (recommended); proof of US citizenship or completion of the US Office of Homeland Security, Transportation Security Administration background check requirements.

Corequisite: AVI 104 or equivalent.

#### AVI 116 FLIGHT SAFETY

3 Lecture 0 Lab 3 Credit Hours(s)

This course introduces practical safety material, organizations and equipment necessary to conduct safe daily flight operations. All factors including weather, maintenance, equipment and human factors will be examined with particular emphasis on critical decision

making under stress conditions. Proper decision making will be based on knowledge of formal weather briefing techniques flight plan filing, search and rescue methods, post crash survival, aircraft maintenance programs, accident /incident report forms, airport rescue and fire fighting, the role of the NTSB flight safety organizations and modern hardware.

Prerequisite AVI-104 Permission of the instructor

#### AVI 201 AVIATION MANAGEMENT

3 Lecture 0 Lab 3 Credit Hours(s)

Presents operational and managerial aspects of general aviation, charter service and the airlines Emphasizes corporate aviation and fixed base operations (FBO), flight training, corporate aviation, general aviation aircraft, business aircraft ownership and management methods, and regulations associated with general aviation operations

V. Pre-requisites: AVI-101 Introduction to Flight

#### AVI 208 COMMERCIAL FLIGHT

3 Lecture 0 Lab 3 Credit Hours(s)

This course is a study of the required knowledge information for a Commercial Pilot's license. Subjects covered in this course include: advanced aerodynamics, advanced aircraft systems, physiology, emergency procedures and planning, flight safety, and aeronautical decision making. There is a focus on crew resource management and flight safety operations to include Part 91 and Part 135 regulations and operations. Students will receive an instructor endorsement for the Commercial Pilot Knowledge Exam at the completion of the course requirements for an airplane-SEL. The fee for the FAA Knowledge Exam is not covered in the course fee.

Prerequisites: AVI 104

#### AVI 209 COMMERCIAL FLIGHT LABORATORY II

0 Lecture 3 Lab 1 Credit Hours(s)

This course provides a student with continued practical experience in aviation crew resource management. Continued use of effective communication skills are formulated and evaluated throughout this course. Students are introduced to the function and operation of advanced aircraft systems; practical experience in accelerated stalls and advanced maneuvers in order to apply aerodynamic theory. Students are trained on advanced aircraft systems, incorporating the associated emergency procedures for these systems and planning for commercial flight situations. Students completing this course in conjunction with AVI 218 will receive the practical flight experience requirements necessary to complete the FAA Commercial Practical Exam and receive a Commercial Pilot Certificate. The cost of flight school is considerable and is subject to change.

Prerequisite: AVI 208 and AVI 218 (Commercial Flight Laboratory I); FAA Second Class Medical Certificate (required), FAA First Class Medical Certificate (recommended); proof of US citizenship or completion of the US Office of Homeland Security, Transportation Security Administration background check requirements.

#### AVI 218 COMMERCIAL FLIGHT LABORATORY I

0 Lecture 3 Lab 1 Credit Hours(s)

This course provides a student with the practical flight experience in a single engine aircraft toward the FAA cross country requirement to obtain a Commercial Pilot Certificate. This course alone will not complete all requirements for the commercial certificate. Students will gain flight experience in day and night cross-country both dual and solo. Students will be introduced to the crew resource management concept, function and practical use of standard operating procedures, minimum equipment lists and commercial flight operations (Part 135 and Part 121) scenarios. The cost of flight school is considerable and is subject to change.

Prerequisite: AVI104 and AVI114(Instrument Flight Lab), or equivalent Private Pilot w/Instrument Rating; FAA Second Class Medical Certificate (required), FAA First Class Medical Certificate (recommended); proof of US citizenship or completion of the US Office of Homeland Security, Transportation Security Administration background check requirements.

Corequisite: AVI208 or equivalent.

#### AVI 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Prior to registering for any special studies course, the approval of the department head must be obtained. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of Aviation Science and related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### AVI 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to AVI 271, except that the student's time commitment to this project will be approximately 70-90 hours.

#### AVI 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to AVI 271, except that the student's time commitment to this project will be approximately 105-135 hours.

## BEHAVIORAL SCIENCES

### BHS 100 PERSONAL EFFECTIVENESS

2 Lecture 0 Lab 2 Credit Hours(s)

An exploration, via lectures, films, and group experiences, of various aspects of effective interpersonal functioning. Topics will include: reacting to frustration, failure, anger; and fear; effectively expressing one's feelings and needs; the importance of awareness and development of one's potentials through active and responsible choosing; and developing constructive coping skills.

Note: Recommended only for students with 11 or fewer earned college credits.

### BHS 103 SOCIAL PROBLEMS IN TODAY'S WORLD

3 Lecture 0 Lab 3 Credit Hours(s)

This course examines social problems that confront the world today, and the underlying shared values, ethics, and diverse perspectives that contribute to those problems. Concepts of the behavioral sciences are introduced. The course presents a broad range of social problems, with particular focus on the complex relationships between contemporary issues. Students are presented the current research data that explains both the causes and possible resolutions to important social issues.

### BHS 110 INTRODUCTION TO HUMAN SERVICES

3 Lecture 0 Lab 3 Credit Hours(s)

An overview of human services and human service education. Other topics include the history of the field, major theoretical perspectives for treatment, roles, skills and professional development of workers, target populations and problem identification.

### BHS 142 CRIMINOLOGY

3 Lecture 0 Lab 3 Credit Hours(s)

A study of crime and society's response to crime, the rehabilitation of the criminal offender and the prevention of crime. Various theories concerning the causes of crime are studied. Current social problems and their relevance to crime causation are discussed.

Prerequisite: BHS 103 or permission of department head.

### BHS 201 CONTEMPORARY PROBLEMS

2 Lecture 0 Lab 2 Credit Hours(s)

This course surveys significant problems and issues germane to the field of substance abuse. Attention will be given to cause-effect relationships, family issues, grief and loss, policy and the law and evolving trends and attitudes. Recent research will be examined with consideration of implications for prevention and control.

Prerequisite: BHS 242 or permission of department.

### BHS 202 PHYSICAL ANTHROPOLOGY

3 Lecture 0 Lab 3 Credit Hours(s)

The study of humans as physical organisms, with an emphasis on the interaction between biology and culture. Physical Anthropology focuses on the evolution of the human species as well as modern human physical variation. The sub-fields of paleontology, genetics, primatology and archaeology are explored.

### BHS 203 SOCIOLOGY

3 Lecture 0 Lab 3 Credit Hours(s)

Designed to introduce the student to the major issues and fundamental concepts in the field of sociology. Areas selected for analysis are culture and its transmission, personality and socialization, social roles and processes, groups and elements of group behavior, and social status and class. These focal areas are then used to examine various social institutions, including the family, religion, the economic system, education and the political system. Trends of modern society are considered.

### BHS 204 ANTHROPOLOGY

3 Lecture 0 Lab 3 Credit Hours(s)

The study of human behavior in a biological and cultural context. The various sub-divisions of anthropology, their concerns, techniques and findings are explored: physical anthropology, archaeology and cultural anthropology. Course work and analyses are integrated with the course background.

### BHS 205 THE FAMILY

3 Lecture 0 Lab 3 Credit Hours(s)

The study of the family from a sociological viewpoint, with special reference to the American family. The course emphasizes: the historical and cross-cultural study of the family; patterns of dating and mate selection; sexual norms and relationships; marital and family relationships; marital crisis and divorce; the family and social policy; and the future of the family as a social institution.

### BHS 206 CULTURAL ANTHROPOLOGY

3 Lecture 0 Lab 3 Credit Hours(s)

The systematic study of human behavior in a cultural context. Major topics include the evolution of culture, linguistics, sociocultural systems, and globalization with an emphasis on a non-western, non-eurocentric viewpoint. The methodology of Anthropological research is also studied.

### BHS 207 EDUCATION IN AMERICAN SOCIETY

3 Lecture 0 Lab 3 Credit Hours(s)

An introductory study of education as a major social institution with special attention being given to the philosophies, patterns, cultural diversity, and issues which have characterized the American system. A consideration of higher education is included.

### BHS 209 RACIAL AND ETHNIC RELATIONS

3 Lecture 0 Lab 3 Credit Hours(s)

Racial, cultural and ethnic minority groups in American society. The nature and patterns of interaction are examined, including contact, conflict, assimilation, acculturation, pluralism and segregation. Current situations are stressed. Prerequisite: BHS 103 or permission of department head.

### BHS 210 THE SOCIOLOGY OF RELIGION

3 Lecture 0 Lab 3 Credit Hours(s)

The sociological interpretation of religion is the empirical study of religion as a social institution. Major issues in the analysis of religion include: the origins of religion; the functions of religion; the relation of religion and society; types of religious authority; liberation theology and contemporary world religious movements; women, race, and sex and religion; religion and social and cultural differentiation.

### BHS 212 CHILD ABUSE

3 Lecture 0 Lab 3 Credit Hours(s)

A systematic examination of child physical and sexual abuse. Various historical factors, dynamics, and symptoms will be discussed using theoretical and empirical constructs.

### BHS 214 INTRO TO WORLD ARCHAEOLOGY

3 Lecture 0 Lab 3 Credit Hours(s)

An Introduction to the study of Archaeology, which gives voice to ancient civilizations by examining the material products of their shaping hands and thinking minds. Archaeology begins with an introduction to the methods employed in modern archaeology and then proceeds to examine the earliest cultures and civilizations to emerge in human history, from the ancient Sumerians to the Bronze Age people of Britain to the magnificent Inca of Peru.

### BHS 215 FIELD ARCHAEOLOGY

2 Lecture 2 Lab 3 Credit Hours(s)

This course is designed for the beginning archeology student who wishes to gain practical, hands-on experience in field excavation; the course consists of classroom study in field techniques and actual field excavation. Topics include history, survey, dating, field techniques, laboratory techniques, curation and report writing. Special emphasis is placed on New York State Archaeology and the requirement of the New York State Office of Parks, Recreation and Historic Preservation. The field excavation will take place on landscapes publicly held by the citizens of Dutchess County where the commercial excavation would be prohibitive. Sites that have been assessed as endangered by the State Archaeologists will be given priority.

### BHS 216 SOCIOLOGY OF HLTH & MED IN U.S.

3 Lecture 0 Lab 3 Credit Hours(s)

This course introduces the student to sociological phenomena as they relate to human health and diseases, mainly in the United States, but also with some consideration of health organizations, philosophy and delivery in the other areas of the world. Included in the course are comparative distributions of diseases among different population groups, individual responses, attitudes and beliefs toward health and illness, medical care providers and organizations, financing and delivery of health care, and the roles of social factors in the etiology and outcome of diseases.

### BHS 220 COMPARATIVE SOCIAL SYSTEMS I

1 Lecture 4 Lab 3 Credit Hours(s)

This course provides an opportunity to experience firsthand operation of selected social systems for comparison and contrast to those in the United States. The social systems considered and the international settings may vary from one offering to the next. Consult the master schedule of courses for details.

### BHS 221 COM SOC SYSTEMS IN US AN AB II

1 Lecture 2 Lab 2 Credit Hours(s)

For selected students.

Note: May be offered as an independent course or in conjunction with BHS 220 and/or 222.

Prerequisite: Permission of the instructor.

### BHS 222 COM SOC SYS IN US & ABROAD III

1 Lecture 2 Lab 2 Credit Hours(s)

For selected students.

Note: May be offered as an independent course, or in conjunction with BHS 220 and/or BHS 221. Students must register for both a lecture and a lab. 1 Lecture, 2 Lab, 2 Credit Hours.

Prerequisite: Permission of instructor.

### BHS 231 TOPICS IN BHS I

1 Lecture 0 Lab 1 Credit Hours(s)

This course is designed to explore a specific topic area in the Behavioral Sciences in greater depth than would occur in an introductory level offering. The topics will vary and may be drawn from Anthropology, or from Sociology, or from any of their various, applied sub-fields. The classroom instruction will amount to a period five weeks of the semester, or its equivalent in formal lecture/discussion.

### BHS 232 TOPICS IN BHS II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to BHS 231, except that the instructional time will take place over a period of 10 weeks of the semester, or its equivalent in formal lecture/discussion.

### BHS 233 TOPICS IN BHS III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to BHS 231, except that the instructional time will take place for the entire fifteen weeks of the semester, or its equivalent in formal lecture/discussion.

### BHS 242 DRUG & ALCOHOL USE AND ABUSE

3 Lecture 0 Lab 3 Credit Hours(s)

A study of the problems and factors attendant to alcoholism and other substance abuse, including a survey of the physiological and pharmacological aspects of such use. Various theories and current rehabilitative methods will be examined as will dependency states, socio-psychological factors and alternatives to mood-modifying substance use/abuse.

### BHS 245 ISSUES & ETHICS IN HMN SRVCS

3 Lecture 0 Lab 3 Credit Hours(s)

Designed for students completing the Human Services programs in CHC or CMH, this course considers the application of the theories/skills/values acquired in the designated programs to current and future trends in the field, as well as addressing specific issues confronted by human services professionals.

Prerequisites: BHS 110, CHC or CMH 103, CHC or CMH 104, PSY 102, PSY 134, PSY 202, PSY 203 and PSY 235 or PSY 201.

### BHS 251 TOPICS IN BHS I

1 Lecture 0 Lab 1 Credit Hours(s)

This course is designed to explore a specific topic area in the Behavioral Sciences in greater depth than would occur in an introductory level offering. The topics will vary and may be drawn from Anthropology, or from Sociology, or from any of their various, applied sub-fields. The classroom instruction will amount to a period five weeks of the semester, or its equivalent in formal lecture/discussion.

### BHS 252 TOPICS IN BHS II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to BHS 251, except that the instructional time will take place over a period of 10 weeks of the semester, or its equivalent in formal lecture/discussion.

### BHS 253 TOPICS IN BHS III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to BHS 251, except that the instructional time will take place for the entire fifteen weeks of the semester, or its equivalent in formal lecture/discussion.

### BHS 262 JUVENILE DELINQUENCY

3 Lecture 0 Lab 3 Credit Hours(s)

Designed to introduce students to the development of juvenile delinquency in American Society. This course emphasizes the ways in which society structures juvenile delinquency as a social phenomenon. The course presents various theories to explain both the causes of juvenile delinquency, as well as society's response to youth offenders, and examines programs, interventions and punishments that attempt to change juvenile behavior. Prerequisite: BHS 103 or permission of the department head.

### BHS 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Prior to registering for any special studies course, the approval of the department head must be obtained. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of social science and related areas. The student's time commitment to the project will be approximately 35-50 hours.

### BHS 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to BHS 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### BHS 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to BHS 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## BIOLOGY

### BIO 001 CRSE SPCFC STDY SK-BIO105

1 Lecture 0 Lab 1 Credit Hours(s)

BIO 001 is a study skills course designed for those students who require support in BIO-105, General Biology I, taught by the instructor of BIO 105 with which it is content related. BIO 001 will include practical work with notetaking, textbook mastery, laboratory techniques, exam preparation and test taking techniques, as well as specific strategies necessary to the successful study of biology.

Note: BIO 001 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

Co-requisite: BIO-105

### BIO 030 INTRODUCTION TO BIOLOGY

2 Lecture 3 Lab 3 Credit Hours(s)

This course is designed for students in programs requiring Biology who are unprepared to enter a 100 level course as shown by testing and/or background. Course content includes study techniques, the nature of science, the scientific method, the metric system, biochemistry, the cell, the laboratory report and basic laboratory techniques. This course requires basic mathematical skills. Students are encouraged to take the appropriate English and math courses determined by placement testing with this course. A grade of C or better is required to take BIO 130. This course is a prerequisite for BIO 130 for those students referred after testing. Students are eligible to register for this course only twice.

NOTE: BIO 030 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

### BIO 103 HUMAN BIOLOGY

3 Lecture 2 Lab 4 Credit Hours(s)

An introductory course which concerns the structure and function of the human body and the maintenance of homeostasis. The course is designed for non-science majors and does not fulfill the elective requirement of the LAX student.

### BIO 104 ENVIRONMENTAL BIOLOGY

3 Lecture 2 Lab 4 Credit Hours(s)

An introductory course focusing on people and their relationship to the external environment. The subject is treated in the context of conservation, ecology, taxonomy and human behavioral patterns. Topics of current interest are discussed, such as pollution, local environmental issues and the economic uses of natural areas. The course is designed primarily for non-science majors and does not fulfill the elective requirement of the LAX program.

### BIO 105 GENERAL BIOLOGY I

3 Lecture 2 Lab 4 Credit Hours(s)

An interdisciplinary study of basic biological concepts, including the nature of science, matter, the cell, characteristics of living matter, a brief survey of the living world, and ecology. BIO 105 and BIO 106 are recommended for students who wish to pursue studies in the Biological and Life Sciences. Non-science majors are encouraged to consider BIO 103 and BIO 104 (see descriptions).

### BIO 106 GENERAL BIOLOGY II

3 Lecture 2 Lab 4 Credit Hours(s)

A continuation of BIO 105, including homeostasis in organisms, genetics, evolution and a consideration of

the structure and function of tissues, organs and organ systems.

prerequisites: BIO 105 with a grade of C or better.

### BIO 112 A BIOMEDICAL VIEW AIDS/HIV INFECTION

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed to examine the frequency and distribution of AIDS/HIV infection. It will provide a general understanding of HIV, its modes of transmission, and approaches to its control and management. In addition, the course explores current concepts in the areas of testing, treatment and prevention.

### BIO 115 ANATOMY & PHYSIOLOGY FOR PARAMEDICS

4 Lecture 3 Lab 5 Credit Hours(s)

This one semester course is designed primarily for Paramedic students. It focuses on a problem-oriented approach to enhance understanding of the biological, chemical and physical principles underlying body system interactions in health and disease. The course is required for students in the Emergency Medical Technician-Paramedic program. Students must complete BIO 115 with a grade of C or better. It is not intended for Biology majors.

### BIO 117 UNDERSTANDING CANCER

3 Lecture 0 Lab 3 Credit Hours(s)

This course is intended to introduce the student to various aspects of cancer including the biology of cancer, its impact on the patient and on society, treatment methods, risk assessment, prevention and future trends in dealing with the United States' second leading killer. Instructional methods include lecture, video tapes, classroom discussions, interactive CD-ROM and Web-based activities and guest lectures. Nursing students may not use this course for free elective credit.

### BIO 122 NUTRITION

3 Lecture 0 Lab 3 Credit Hours(s)

This course is a study of the role nutrition plays in maintaining health. The course will cover basic nutrition concepts, application of nutrition guidelines, awareness of nutrition's role in disease management, life cycle nutrition, and food safety. Controversial issues related to nutrition and health will also be discussed.

### BIO 130 INTRODUCTION TO PHYSIOLOGY

3 Lecture 2 Lab 4 Credit Hours(s)

Course content includes biochemistry, the cell, transport mechanisms, the laboratory report and laboratory techniques. This course requires basic computational skills. This course is a prerequisite for BIO 131 for those students referred after testing. A grade of C or better is required to take BIO 131. This course does not fulfill the elective requirement of the LAX student.

Pre-requisites and/or co-requisites: A grade of C or better in BIO 030 is required to take BIO 130. BIO 030 is a prerequisite for BIO 130 for those students referred after testing.

#### BIO 131 ANATOMY AND PHYSIOLOGY I

3 Lecture 2 Lab 4 Credit Hours(s)

The application of scientific principles from the areas of biology, chemistry and physics to the study of human anatomy and physiology. Required for nursing students and open to students in medically allied technologies. Not intended for biology majors.

Prerequisite: For those referred by testing or BIO 130 with a grade of C or better.

#### BIO 132 ANATOMY AND PHYSIOLOGY II

3 Lecture 2 Lab 4 Credit Hours(s)

BIO 132 is a continuation of BIO 131. Designed primarily for those students in the medically allied technologies.

Prerequisite: BIO 131 with a grade of C or better.

#### BIO 144 HUMAN GENETICS

3 Lecture 0 Lab 3 Credit Hours(s)

An interdisciplinary course involving the study of basic human genetics principles relating to cytogenetics, birth defect syndromes, genetic counseling, application to developmental disabilities, biochemical genetics, ethics, human engineering, clinical diagnoses, community services, community residential facilities and current legislation.

#### BIO 203 INVERTEBRATE ZOOLOGY

3 Lecture 3 Lab 4 Credit Hours(s)

An introduction to the principles of the classification of animals, followed by a systematic study of invertebrate animals, including their morphology, physiology, and natural history. Concepts of evolution, paleontology, and ecology are discussed.

Prerequisite: BIO 105

#### BIO 204 GENERAL BOTANY

3 Lecture 3 Lab 4 Credit Hours(s)

An introduction to the dynamic aspects of the plant world, including principles of classification, physiology, a survey of the plant kingdom, conservation, ecology and evolution. Laboratory work deals with physiological experiments, plant identification, life histories, and morphology. Field trips are scheduled.

Prerequisite: BIO 105

#### BIO 205 GENETICS

3 Lecture 3 Lab 4 Credit Hours(s)

An introductory study of the basic principles of inheritance, including the biochemical, physiological

and evolutionary aspects. Laboratory work includes experiments with microorganisms and fruit flies.

Prerequisite: BIO 105 and BIO 106

#### BIO 207 GENERAL MICROBIOLOGY

3 Lecture 3 Lab 4 Credit Hours(s)

A study of microorganisms, with major focus on the bacteria. Morphology, physiology and genetics are emphasized. Applied areas are included.

Prerequisites: BIO 105-106, CHE 121-122 or permission of instructor.

#### BIO 209 ANATOMY

3 Lecture 3 Lab 4 Credit Hours(s)

A study of the various organ systems making up the total organism with emphasis on the human anatomy. Structural study of the skeletal, muscular, circulatory, respiratory, digestive, excretory, nervous, and reproductive systems. Laboratory work will include dissection of the cat.

Prerequisites: BIO 105 – BIO 106

#### BIO 210 PHYSIOLOGY

3 Lecture 3 Lab 4 Credit Hours(s)

A study of the workings and functional interrelationships of the organ systems, with emphasis on human physiology. Includes the skeletal, muscular, circulatory, respiratory, digestive, excretory, nervous, and reproductive systems. Laboratory work will include experiments and demonstrations utilizing living material.

Prerequisites: BIO 105 – 106 and BIO 209 or permission of the instructor.

#### BIO 212 MICROBIOLOGY

3 Lecture 3 Lab 4 Credit Hours(s)

This course is a study of microorganisms, with emphasis on their morphology, physiology, and medical significance. Intended for students in the medical-allied health technologies. Not intended for biology majors, and does not fulfill the elective requirements of the LAX student.

Prerequisites: BIO 131 and BIO 132 with a grade of C or better.

#### BIO 213 CELL PHYSIOLOGY

3 Lecture 3 Lab 4 Credit Hours(s)

Cell physiology is a study of the regulation of cell growth and differentiation, cell-cell communication, control of gene expression, cellular aging, programmed cell death, and tissue maintenance. Cancer, as well as selected other diseases, are studied as examples of pathologies of each of these aspects of cellular physiology. Laboratories will teach a variety of basic research skills, including molecular biology techniques and histopathology. BIO 213 is intended for the LAX student.

Prerequisites: BIO 105-106 or permission of the instructor.



## BIO 214 ECOLOGY

2 Lecture 4 Lab 4 Credit Hours(s)

Ecology is a study of biological communities using field and laboratory methods. The ecological basis of contemporary environmental problems are examined and related to human activities. Food webs, energy pyramids, community structure, limiting factors and ecological succession are studied as they relate to environmental management practices.

Prerequisite: BIO 105 with a grade of C or better.

## BIO 226 ENVIRONMENTAL CONTAMINANTS

3 Lecture 3 Lab 4 Credit Hours(s)

This course is a study of the serious problems associated with hazardous and toxic substances in the environment. Topics include the classification of contaminants in the ecosystem, bioconcentration, assessment risks, and management techniques for hazardous material present in the atmosphere, hydrosphere and lithosphere.

Prerequisites BIO 105

## BIO 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of biology or related areas. The student's time commitment to the project will be approximately 35-50 hours.

## BIO 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to BIO 271, except that the student's time commitment to the project will be approximately 70-90 hours.

## BIO 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to BIO 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## BUSINESS

### BUS 100 BUS ADMINISTRATION INTRO SEM

1 Lecture 0 Lab 1 Credit Hours(s)

Designed for students in the business curricula, this course will focus on personal development and effective strategies for successful completion of the AAS and AS degrees. Personal educational goals, career planning, good study approaches, reading and writing skills, and using college resources, such as the library and Internet, will be among the topics examined in the seminar.

Students will develop an individual 'plan for the self' emphasizing individual goals and how they expect to achieve them.

### BUS 101 BUSINESS MATHEMATICS

3 Lecture 0 Lab 3 Credit Hours(s)

This course focuses on the application of fundamental arithmetical computations to practical business problems. Topics studied include: percentages, purchase discounts, interest calculation, mark-up and mark-down, taxes and payroll. Students may use personal calculators as an aid in covering course content. Prerequisite: Compass Algebra Score of at least 49; OR Math A Regents within the last 2 years of at least 65; OR MAT091 with at least a C.

### BUS 102 INTRODUCTION TO BUSINESS

3 Lecture 0 Lab 3 Credit Hours(s)

A survey course introducing business and non-business students to the world of business. This course will provide the student with a basic knowledge and understanding of the major aspects of the American business system and their interrelationships. Topics include economic systems, forms of business ownership, legal aspects of business, the management of resources, the importance of the market, capital acquisition and financing, accounting, risk management, information acquisition and distribution, social responsibility and opportunities in business.

### BUS 103 KEYBOARDING FOR INFO PROCESSNG

1 Lecture 1 Lab 1 Credit Hours(s)

Development of basic touch keyboarding skills for individuals who will be using keyboards for inputting information. Instruction will occur using computer terminal keyboards and specialized keyboarding computer software.

Note: This course will be offered on a seven-week basis, four hours per week.

### BUS 104 BUS ORGANIZATN & MANAGMNT

3 Lecture 0 Lab 3 Credit Hours(s)

A study of the managerial process and the social and organizational forces that shape and define the manager's job. The objective of the course is to examine the basic managerial functions of planning, organizing, motivating and controlling in order to develop an understanding of issues as they are found in business practice.

### BUS 105 ADVERTISING

3 Lecture 0 Lab 3 Credit Hours(s)

A study of the procedures and techniques of advertising. Attention is given to the purposes of advertising, the creation of advertising ideas, the writing of copy, trademarks, fundamentals of advertising layout, selecting

and using media, market research and the advertising agency.

#### BUS 106 PROFESSIONAL SELLING

3 Lecture 0 Lab 3 Credit Hours(s)

The role of selling in the context of a marketing environment. Creative, ethical, professional selling and its practical application to industrial, wholesale, retail and service situations are explored. Topics include communication skills, planning sales calls and sales presentation, meeting objections, closing the sale, service after the sale, careers in sales and the use of technology, such as computer software and the Internet.

#### BUS 107 PRINCIPLES OF MARKETING

3 Lecture 0 Lab 3 Credit Hours(s)

A study of principles underlying the development and distribution of goods and services for organizational and consumer needs. Topics include: development of the marketing concept, legal and cultural environment, marketing research, segmentation, buyer behavior, product development, pricing, wholesaling, retailing, advertising, selling and Internet applications.

#### BUS 109 INTRO TO MICROSOFT EXCEL

1 Lecture 0 Lab 1 Credit Hours(s)

This course is designed to introduce students to the basics of spreadsheet software using Microsoft Excel. This course will cover worksheet basics, creating, formatting, editing and printing worksheets and charts. An introduction to Windows will also be included.

#### BUS 110 INTRO TO MICROSOFT ACCESS

1 Lecture 0 Lab 1 Credit Hours(s)

This course is designed to introduce students to the basics of database software using Microsoft Access. This course will cover basic database management, the functions of creating, editing, printing and manipulating a database. An introduction to Windows will also be included.

#### BUS 111 INTRO TO MICROSOFT POWERPOINT

1 Lecture 0 Lab 1 Credit Hours(s)

This course is designed to introduce students to the basics of presentation software using Microsoft Power Point. This course will cover presentation basics, creating, formatting, editing, printing and delivering presentations.

#### BUS 112 INTRO TO MICROSOFT WORD

2 Lecture 0 Lab 2 Credit Hours(s)

This course is designed to introduce students to the use of word processing software on a microcomputer or computer terminal. The course will include basic Windows commands, the functions of creating, editing, printing, spell check, headers/footers, footnotes, and proper formatting of letters, memos, and reports.

Prerequisite: BUS 103 with a grade of C or better.

#### BUS 141 INTRO TO HOSPITALITY & TOURISM

3 Lecture 0 Lab 3 Credit Hours(s)

An introduction to global travel and tourism and the role they play as major retailers. Topics to be discussed will include: Career options, corporate travel administration, transportation, hotel industry, tourism boards, convention centers, and park services. The role of tourism and marketing procedures will also be included.

#### BUS 161 RETAIL MANAGEMENT

3 Lecture 0 Lab 3 Credit Hours(s)

The principles of successful retail store management are analyzed. The topics discussed include retailing as an economic force, types of retail stores and their organizational structure, planning and management of store services, customer behavior and the basics of merchandising.

#### BUS 162 FUNDAMENTALS OF FASHION

3 Lecture 0 Lab 3 Credit Hours(s)

This course deals with a basic fashion vocabulary; how fashion trends develop; the producers, designers, retailers and consumers of fashion. Fashion influences from Europe and the U.S. as well as the fashion press, are also discussed. The way we live and the things we do are related to fashion as an element of change in our economy.

#### BUS 201 PERSONAL FINANCE

3 Lecture 0 Lab 3 Credit Hours(s)

This course examines the tools, terminology, and applications necessary to successfully manage financial matters in our daily lives. Topics include the personal financial planning process, career strategies, money management, personal taxation, financial institution services, and consumer credit. Evaluation techniques related to housing, transportation, insurance, investments, real estate, and retirement planning are also covered.

Prerequisite: MAT 109 or higher

#### BUS 208 SMALL BUSINESS MANAGEMENT

3 Lecture 0 Lab 3 Credit Hours(s)

A practical application of management principles to small business. Topics include: how to start a small business, franchising, sources of capital, how to buy a small business, location analysis, employee relations, financial control, inventory control, advertising, selling, credit and legal aspects of business.

Prerequisite: BUS 102 or 104 or 107 or permission of the department.

#### BUS 210 BUSINESS COMMUNICATION

3 Lecture 0 Lab 3 Credit Hours(s)

This course provides instruction and practice in various forms of written and oral communication used in the workplace. The focus of written work is on developing

an effective writing style for memos, letters and reports; learning appropriate business document formatting and improving grammar, punctuation and usage. Oral communication skills are developed by preparing and delivering business presentations and by working in group settings. Electronic communication methods include the use of e-mail and the Internet.

Prerequisite: ENG 101.

#### BUS 215 BUSINESS LAW I

3 Lecture 0 Lab 3 Credit Hours(s)

An introduction to the legal environment in which business functions. Topics studied include the judicial system, business related torts, intellectual property, and the law of contracts.

BUS 102 or BUS 104 or PAL 120 or departmental permission

#### BUS 216 BUSINESS LAW II

3 Lecture 0 Lab 3 Credit Hours(s)

As a continuation of BUS 215, the course focuses on the impact of the law in such areas as the Uniform Commercial Code, agency, and business organizations.

Prerequisite BUS 215 or departmental permission

#### BUS 244 HUMAN RESOURCE MANAGEMENT

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed to provide an in-depth study of the processes of managing the human resources of an organization. It includes the acquisition, training, and development, remuneration and reward, utilization, and motivation of an organization's human assets. Major attention is paid to the legal and social aspects of the environment as they relate to human resources. The impact of unions on the organization's human resources is also studied.

Prerequisite: BUS 102 or BUS 104.

#### BUS 254 GLOBAL BUSINESS

3 Lecture 0 Lab 3 Credit Hours(s)

This course provides an overview of international business. Specifically, it provides the students with a description and analysis of the mechanics of doing business abroad. It discusses how cultural, economic, environmental, legal and political differences affect the success of U.S. business abroad.

Prerequisite: BUS 102 or 104.

#### BUS 255 OFFICE PRACTICE

3 Lecture 0 Lab 3 Credit Hours(s)

This course will give students a perspective on the role of administrative support professionals and recognition of the technological developments that have affected office roles. Topics include the changing workplace, mastering technology, filing and records management,

handling mail, succeeding in the work environment, time management, writing and presenting successfully, professional growth and human relations. Projects requiring the use of a variety of computer software as well as the use of the Internet and email will be included in this course.

Prerequisites: CIS 111 or BUS 112

#### BUS 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of business or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### BUS 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to BUS 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### BUS 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to BUS 271, except that the student's time commitment to the project will be approximately 105-135 hours.

#### BUS 290 BUSINESS INTERNSHIP

1 Lecture 8 Lab 3 Credit Hours(s)

This course provides students with a real world laboratory in which to gain work experience in various types of businesses or similar institutions. The work experience will be 120 hours in duration. The internship will be customized to meet the specific needs of the student intern. Consequently, specific learning objectives must be developed by the collaboration of the intern, the on-site supervisor, and the faculty sponsor. Some typical areas of student learning can be focused on: accounting, marketing, advertising, sales, management, finance, insurance, real estate, public relations, human resources, banking, or any business-related area that meets the student's needs. In addition, interns meet one hour per week at a regularly scheduled time to discuss and share experiences. Internship logs and special reports are required.

Note: Matriculation in ACC and BUS; sophomore status with 30 credits, including 12 credits in BUS or ACC required. Students must register for both a lecture and a lab.

Prerequisite: Permission of department.

## CHEMICAL DEPENDENCY

### CDC 103 CHM DPDCY CNSLG PRCTCM I

1 Lecture 4 Lab 2 Credit Hours(s)

Students will experience an extended placement at a mental health or social service agency serving individuals with chemical dependency issues. Emphasis will be placed on the organization of the agency and on services provided. Also, students are required to attend a weekly seminar class, meet weekly with a college field supervisor and complete log reports.

Corequisite: CDC 203.

Pre or Corequisite: PSY 102.

### CDC 104 CHM DPDCY CNSLG PRCTCM II

1 Lecture 4 Lab 2 Credit Hours(s)

Students will experience an extended placement at a mental health or social service agency serving individuals with chemical dependency issues. Emphasis will be placed on understanding normal development and on communication skills. Also, students are required to attend a weekly seminar class, meet weekly with a college field supervisor and complete log reports.

Corequisite: CDC 204.

Pre or Corequisite: PSY 134.

### CDC 203 CHM DPDCY CNSLG PRCTCM III

1 Lecture 8 Lab 3 Credit Hours(s)

Students will experience an extended placement at a mental health or social service agency serving individuals with chemical dependency issues. Emphasis will be placed on understanding atypical development and on treatment interventions. Also, students are required to attend a weekly seminar class, meet weekly with a college field supervisor and complete log reports.

Corequisite: CDC 103.

Pre or Corequisite: BHS 242.

### CDC 204 CHM DPDCY CNSLG PRCTCM IV

1 Lecture 8 Lab 3 Credit Hours(s)

Students will experience an extended placement at a mental health or social service agency serving individuals with chemical dependency issues. Emphasis will be placed on understanding atypical development, treatment interventions and on special issues in the field of alcohol and drug abuse. Also, students are also required to attend a weekly seminar class, meet weekly with a college field supervisor and complete log reports.

Corequisite: CDC 104.

Pre or Corequisite: BHS 201.

### CDC 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental

approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of chemical dependency counseling or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### CDC 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to CDC 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### CDC 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to CDC 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## CHILD CARE

### CHC 103 CHLD CARE & YTH PRACTCM I

1 Lecture 4 Lab 2 Credit Hours(s)

Students will experience an extended placement at an agency serving children, youth and adults. Emphasis will be placed on the organization of the agency and on services provided. Also, students are required to attend a weekly seminar class, meet weekly with a college field supervisor and complete log reports.

Pre- or Corequisite: BHS 110.

### CHC 104 CHLD CARE & YTH PRCTCM II

1 Lecture 4 Lab 2 Credit Hours(s)

Students will experience an extended placement at an agency serving children, youth and/or adults with special needs. Emphasis will be placed on normal development and on communication skills. Students are also required to attend a weekly seminar class, meet weekly with a college field supervisor and complete log reports.

Pre- or Co-requisites: BHS 110, PSY 102, and PSY 203 (except for DRC students who are not required to take PSY 203)

### CHC 203 CHLD CARE-YTH PRCTCM III

1 Lecture 8 Lab 3 Credit Hours(s)

Students will experience an extended placement at an agency serving children, youth, and/or adults with special needs. Emphasis will be placed on atypical development, treatment interventions and on group living. Students are also required to attend a seminar class, meet weekly with a field supervisor and complete log reports.

Pre- or co-requisites: CHC 103 or CHC 104 and PSY 235 and PSY 202 for A.A.S. Degree;

CHC 103 and PSY 134 for Direct Care Certificate.

### CHC 206 CHLD CARE & YTH PRCTCM IV

1 Lecture 8 Lab 3 Credit Hours(s)

Students will experience an extended placement at an agency serving children, youth, and/or adults with special needs. Emphasis will be placed on atypical development, treatment interventions and on group living. Students are also required to attend a seminar class, meet weekly with a field supervisor and complete log reports. Pre- or co-requisites: CHC 103 or CHC 104 and PSY 235

### CHC 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of child care or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### CHC 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to CHC 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### CHC 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to CHC 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## CHEMISTRY

### CHE 111 INTRODUCTION TO CHEMISTRY I

3 Lecture 2 Lab 4 Credit Hours(s)

This course gives an introduction to chemical concepts and principles. Topics covered: basic definitions, chemical symbols, conversion factors, simple chemical calculations, chemical and physical properties and changes, atomic structure, chemical bonding, molecular geometry, kinetic theory of gases, chemical kinetics, chemical equilibrium, solutions and nuclear reactions. The course assumes no previous knowledge of chemistry and serves as an elective or a science elective for students in liberal arts or career programs.

### CHE 112 INTRO TO ORGANIC & BIOCHEMSTRY

3 Lecture 2 Lab 4 Credit Hours(s)

A study of organic compounds with emphasis on structure, nomenclature, major reactions and applications. This is followed by an elementary introduction to biomolecules and their metabolism. The laboratory experiments illustrate reactions, synthesis, purification

and characterization of organic or biomolecules. The student is encouraged to use the library as a resource. Prerequisite: CHE 111.

### CHE 121 GENERAL CHEMISTRY I

3 Lecture 3 Lab 4 Credit Hours(s)

A study of the fundamental facts, laws, theories and concepts of chemistry. Major topics covered include: classification of matter, theory of atomic structure, bonding theory, molecular structure, periodic properties of the elements, stoichiometry, chemical equations, inorganic nomenclature, gas laws and kinetic molecular theory. Problem solving is emphasized. The laboratory stresses quantitative results. This course serves as an elective or science elective for liberal arts students. A scientific calculator is required.

Prerequisites: High school chemistry or CHE 111 and MAT 099 or the equivalent.

### CHE 122 GENERAL CHEMISTRY II

3 Lecture 3 Lab 4 Credit Hours(s)

A continuation of CHE 121. Major topics covered include: molecular geometry, equilibrium, kinetics, electrochemical principles, acid-base theory and its application. The laboratory includes a brief introduction to qualitative analysis. Other experiments stress quantitative results using the spectrophotometer and pH meter.

Prerequisite: CHE 121 with a grade of C or better.

### CHE 231 ORGANIC CHEMISTRY I

3 Lecture 3 Lab 4 Credit Hours(s)

A study of the structure, nomenclature, physical properties and reactivity of organic compounds. Reactions are studied from a mechanistic viewpoint. The laboratory introduces the theory and fundamental techniques of: refractive index, density, micro-boiling points, melting points, distillation, recrystallization, extraction, gas chromatography and their utilization in synthesis. Students are encouraged to use the library as a resource. Prerequisite: CHE 122 with a grade of C or better.

### CHE 232 ORGANIC CHEMISTRY II

3 Lecture 3 Lab 4 Credit Hours(s)

A continuation of CHE 231. A continued study of the structure, nomenclature, physical properties and reactivity of organic compounds. Reaction mechanisms are emphasized as an aid in predicting the path and direction of reactions. The laboratory includes preparative and mechanistic experiments and modern techniques of spectrophotometry and chromatography. Students are introduced to the chemical literature and are required to use the literature in written reports.

Prerequisite: CHE 231 with a grade of C or better.

#### CHE 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience or other activities that advance the student's knowledge and competence in the field of chemistry or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### CHE 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to CHE 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### CHE 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to CHE 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### COMPUTER INFORMATION SYSTEMS

#### CIS 012 CRSE SPCFC STDY SK-CIS 112

1 Lecture 0 Lab 1 Credit Hours(s)

CIS 012 is a study skills course designed for those students who require support in CIS 112, Computer Programming I. The course will include work designed to assist the student with notetaking, exam preparation and test taking, to assist the student in developing the ability to evaluate problem statements, develop algorithms, design program structures, code program solutions, design flowcharts, and debug and present programs.

NOTE: CIS 012 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

#### CIS 100 CIS INTRODUCTORY SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

Designed for students enrolled in CIS, this course will provide students with an opportunity to develop both personally and professionally. The course will provide information regarding effective time management, effective study techniques, utilization of college resources and establishing both short term and long term educational goals. The course will stress the need for integrity, self-discipline and respect for others as fundamental building blocks in career and life planning.

The course will also explore various career paths in the rapidly evolving field of Information Science.

#### CIS 107 CONDUCTING BUSINESS ON THE INTERNET

3 Lecture 0 Lab 3 Credit Hours(s)

This course will introduce the student to conducting business on the Internet. To remain competitive, many companies and entrepreneurs have established a presence on the Internet and are actively involved in conducting business on the net. The student will be exposed to the vast business potential of the net including creating effective web sites using HTML (Hypertext Markup Language), cascading style sheets, imaging and search engine optimization.

#### CIS 108 CONDUCTING RESEARCH ON INTERNET

3 Lecture 0 Lab 3 Credit Hours(s)

This course will introduce the student to the Internet. Students will be provided with necessary skills to effectively explore the information highway in a disciplined and academically productive manner. Students will have the opportunity to conduct in-depth research using the many electronic information resources available in cyberspace. Students will design and develop a web site to report the results of their research.

#### CIS 111 COMPUTER SYSTEMS & APPLICATIONS

3 Lecture 0 Lab 3 Credit Hours(s)

This course introduces the student to the basic terminology and concepts of computer information systems. Topics include: computer business applications, computer components, software design, operating systems, databases, data communications, computer ethics, computer security, and management information systems. Practical hands-on experience will be provided using popular integrated microcomputer application software in database, spreadsheet and word processing management.

#### CIS 112 COMPUTER PROGRAMMING I

4 Lecture 0 Lab 4 Credit Hours(s)

A course designed to introduce methods of solving computer business-oriented problems. A high level programming language is used to learn arithmetic, relational and logical operations, structured programming techniques, table manipulation, I/O data formats and internal subroutines. Programming activities involve problem definition, analysis, solution and documentation. No prior programming experience required.

#### CIS 113 VISUAL BASIC PROGRAMMING

3 Lecture 0 Lab 3 Credit Hours(s)

This course will introduce the student to computer programming. It will focus upon the necessary logic structures required for structured programming. In

addition, it will provide the students with an opportunity to apply the logic structures using the Windows-based programming language Visual Basic, a powerful and versatile language. Students will complete a series of programming assignments in the course. No prior experience with programming is required.

#### CIS 114 COMPUTER PROGRAMMING IN C

3 Lecture 0 Lab 3 Credit Hours(s)

This course will introduce the student to the fundamental constructs of the C language. The syntax of the language will be examined and various algorithms will be implemented using the language. The course will also explore the operating systems environment from an application programmer's perspective.

Note: A programming course on the high school or college level is recommended.

Pre-Requisites: CIS112, CIS113, a programming course, permission of instructor.

#### CIS 117 DATA COMMUNICATION CONCEPTS

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed to introduce the students to the concepts of data, voice and video communications. Topics include communication terminology, local and wide area networks, transmission media, data integrity and security, network management, maintenance of applications and networking operating systems. In addition, current policy issues involved with the communication industry will be examined.

Prerequisite: CIS 111 or concurrent enrollment, or permission of the instructor.

#### CIS 120 COMPUTER BASED PUBLISHING

3 Lecture 0 Lab 3 Credit Hours(s)

This course will provide the student with the necessary skills to electronically publish material in a variety of mediums. In particular, the course will concentrate on desktop publishing and world wide web publishing. The students will be exposed to a variety of popular software packages such as Adobe Photoshop, Adobe InDesign, Adobe FLASH and Adobe Acrobat.

Prerequisite: CIS 111 or concurrent enrollment, or permission of the instructor.

#### CIS 123 COMPUTER PROGRAMMING II

3 Lecture 0 Lab 3 Credit Hours(s)

A course designed to present intermediate features and interrelations of the curriculum's high-level programming language. Topics include advanced language specifications and syntax, input-out processing, storage allocation, data types and organizations, and subroutine linkage. Programming activities involve problem definition, analysis, solution and documentation.

Prerequisite: CIS 112 with a grade of C or better.

#### CIS 124 COMPUTER OPERATING SYSTEMS

3 Lecture 0 Lab 3 Credit Hours(s)

A course designed to present intermediate features and interrelations of the curriculum's high-level programming language. Topics include advanced language specifications and syntax, input-out processing, storage allocation, data types and organizations, and subroutine linkage. Programming activities involve problem definition, analysis, solution and documentation.

Prerequisite: CIS112 or CIS113 or CPS141, with a grade of C or better.

#### CIS 126 UNIX/LINUX

3 Lecture 0 Lab 3 Credit Hours(s)

This course will provide the student with an understanding of the functions of a LINUX based operating system. The LINUX/UNIX system will be utilized to provide the student with hands-on experience relating to the course concepts including basic UNIX commands, utilities, windowing systems, filters, shell programming, file systems, network communication, program execution and basic system programming.

Prerequisites: CIS 111 or concurrent enrollment. Programming experience advisable.

#### CIS 140 HEALTH INFORMATION MANAGEMENT

3 Lecture 0 Lab 3 Credit Hours(s)

The course is organized around the HIPAA components of terminology, transaction framework, planning, privacy and security. It applies across a diversity of medical systems including call centers, nurse triage, financial, accounting, marketing, resources planning, imaging and claims clearinghouse systems.

Prerequisite: CIS 111.

#### CIS 150 INFORMATION SECURITY MANAGEMNT

3 Lecture 0 Lab 3 Credit Hours(s)

This course examines the field of information security to prepare information systems students for their future roles as business decision-makers. It presents a balance of the managerial and the technical aspects of the discipline.

Prerequisite: CIS 111 with a grade of C or better.

#### CIS 160 CAREER SEMINAR, CAREER EXPLORA

2 Lecture 0 Lab 2 Credit Hours(s)

This seminar is designed for matriculated CIS students currently participating in an approved cooperative education work experience. The seminar will include discussion and evaluation of various work experiences, and development of knowledge, skills and attitudes which will help prepare students for successful careers in information systems.

Prerequisite: Permission of instructor required.

#### CIS 161 SPRING CAREER SEMINAR, CAREER

2 Lecture 0 Lab 2 Credit Hours(s)

This seminar is designed for matriculated CIS students currently participating in an approved cooperative education work experience. This seminar will involve discussing and evaluating various work experiences. Students will be provided with an opportunity for developing skills to be successful in their chosen career. The seminar will concentrate on the development of leadership skills, communication skills and influence skills in a business environment.

Prerequisite: Permission of instructor required.

#### CIS 211 FILE ORGANIZATION

3 Lecture 0 Lab 3 Credit Hours(s)

A course designed to present data access and data storage concepts using a relational database platform. SQL (Structured Query Language) will be utilized in both interactive and embedded mode. Indexed access methods and current secondary storage hardware will also be covered in the course.

Prerequisite: CIS 123 with a grade of C or better.

#### CIS 212 SYSTEMS ANALYSIS AND DESIGN

3 Lecture 0 Lab 3 Credit Hours(s)

The life cycle of the development of a computer-based CIS information processing application. Topics include management information systems, the systems study, charting and documentation, I/O design considerations, controls and audit trails, equipment and software selection, implementation and maintenance. A case study, which applies the course concepts, is currently being used.

Prerequisite: CIS 112 or CIS113 or CPS141, with a grade of C or better.

#### CIS 213 ADV SOFTWARE APPS FOR BUSINESS

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed to include more advanced operations, applications and capabilities of software within a business environment. Topics include: operating system functions; file management; advanced database management; advanced spreadsheet, presentation and management software; data analytic software; and application software integration.

Prerequisite: CIS 111 with a grade of C or better or departmental permission.

#### CIS 214 C++ OBJECT-ORIENTED PROGRAMMING

3 Lecture 0 Lab 3 Credit Hours(s)

This course will introduce the student to the fundamental constructs of the C++ language. The primary focus of the course will be to develop and utilize an object oriented approach to programming. Therefore, the constructs in C++, which relate to object oriented programming concepts, will be explored in depth. The course will include a large programming project.

Prerequisite: CIS 114.

#### CIS 215 INTERNET PROGRAMMING USING JAVA

3 Lecture 0 Lab 3 Credit Hours(s)

This course will present the basic constructs of the JAVA programming language and the fundamental methods for JAVA based internet programming. In addition to providing the student with a knowledge of JAVA, the course will also include object oriented concepts as well as the concepts in object oriented design. The student will produce both JAVA applets and JAVA applications. Familiarity with an object oriented language such as C++ would be beneficial.

Pre-Requisites: CIS 114, an object oriented programming course or permission of instructor.

#### CIS 216 LAN I - WINDOWS SERVER

3 Lecture 0 Lab 3 Credit Hours(s)

This course will introduce the student to the concepts involved in designing, installing, optimizing and maintaining a Windows Server based local area network. The course will approach the subject matter from both a practical and a theoretical perspective.

Prerequisite: CIS 111 or concurrent enrollment, or permission of the instructor.

#### CIS 217 LAN II - ADVANCED SERVER

3 Lecture 0 Lab 3 Credit Hours(s)

This course will introduce the student to the advanced concepts involved in designing, installing, optimizing and maintaining a local area network. The course will primarily focus on the advanced server capabilities of a Windows server local area network.. The course will approach the subject matter from both a practical and a theoretical perspective.

Prerequisite: CIS216 or permission of the instructor.

#### CIS 218 ROUTING & SWITCHING TECHNOLOGY

3 Lecture 0 Lab 3 Credit Hours(s)

This course will provide the student with the opportunity to study routing and switching technologies in a CISCO based data communication environment. The student will be exposed to TCP/IP, router programming, firewalls and security, as well as computer network design. The material covered will be applied in a communication networking laboratory.

Prerequisite: CIS 117 with a grade C or better.

#### CIS 223 COMPUTER PROJECTS & APPLICATIONS

3 Lecture 0 Lab 3 Credit Hours(s)

Students are provided with the opportunity to function in a realistic business environment. The course focuses on a case study that requires students to apply knowledge from previous computer information systems courses. The project includes the development of a real time software application using a combination of software technologies. A substantial amount of programming will be required in a high level computer language.



The project development includes the analysis and design of a solution, the coding of the solution, testing, extensive documentation and concludes with a presentation of the system. Prerequisites: CIS 212, CIS213 and programming experience in a high level computer language.

#### CIS 226 ADVANCED UNIX/LINUX

3 Lecture 0 Lab 3 Credit Hours(s)

This course will provide the student with the opportunity to study the UNIX/LINUX operating systems in detail. Among the topics covered will be advanced scripting, networking, advanced editing, security, web servers and system administration. The course will also include a discussion of operating system design and the applicability of the design to the UNIX/LINUX environment.

Prerequisites: CIS 126 with a grade of C or better and a programming course.

#### CIS 227 ASSEMBLER LANGUAGE PROGRAM

3 Lecture 0 Lab 3 Credit Hours(s)

A course in IBM 390 Assembler Language designed to introduce students to data types, data structures, I/O processing, macro processing, dumps and debugging, internal and external subroutines and data manipulation. Prerequisite: CIS 112 with a grade of C or better or CPS 141 with a grade of C or better, or permission of the instructor.

#### CIS 228 WEB SITE ADMINISTRATION

3 Lecture 0 Lab 3 Credit Hours(s)

This course will provide the student with an opportunity to learn the necessary skills required to administer a Web site. The course will include coverage of operating systems, firewalls, security, web hosting and TCP/IP. Client side software including JavaScript will be utilized as well as ASP.NET for server side software. Real time database access using Microsoft SQL. Server will be covered

Prerequisites: CIS 111 and either CIS 107 or CIS 108.

#### CIS 233 ADVANCED VISUAL PROGRAMMING

3 Lecture 0 Lab 3 Credit Hours(s)

This course will cover the advanced features of the Visual Basic Programming language. In particular, the course topics will include object-oriented concepts, relational database programming, active server pages, Visual Basic for Applications, Active X programming and multi-dimensional array processing. The student will complete programming projects in each topical area.

Prerequisite: CIS 113 with a grade of C or better.

#### CIS 235 ADVANCED JAVA PROGRAMMING

3 Lecture 0 Lab 3 Credit Hours(s)

This course will present the advanced capabilities of the JAVA language and study, in some detail, the nuances of the language. As the JAVA technology continues to mature, it is expected that the subject matter of the course may vary somewhat from year to year. The broad areas to be covered include closing, multithreading, JDBC, server side programming, socket programming and JAVA beans. Prerequisite: CIS 215.

#### CIS 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of computer information systems or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### CIS 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to CIS 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### CIS 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar the CIS 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### CAREER AND LIFE PLANNING

#### CLP 101 CAREER EXPLORATION & PLANNING

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed to assist students to better understand and achieve self-direction in choosing a career or a major in college. Emphasis is on self-assessment of interests, values, skills and abilities. Career information, work environment, transfer opportunities and the development of decision-making skills will also be explored. The theory and process of development and career choice will be examined. Discussion, individual and group exercises, computerized assessment and other activities will provide students with an in-depth career planning experience. A final project is required. This course is offered both in the regular class format or as independent study.

### COMMUNITY MENTAL HEALTH

#### CMH 103 CMH PRACTICUM I

1 Lecture 4 Lab 2 Credit Hours(s)

Students will experience an extended placement at a mental health or social services agency. Emphasis will be placed on the organization of the agency and on services provided. Students are also required to attend a weekly seminar class, meet weekly with a field supervisor and complete log reports.

Pre- or corequisite: BHS 110.

#### CMH 104 CMH PRACTICUM II

1 Lecture 4 Lab 2 Credit Hours(s)

Students will experience an extended placement at a mental health or social agency. Emphasis will be placed on understanding normal development and on communication skills. Students are also required to attend a weekly seminar class, meet weekly with a field supervisor and complete log reports.

Pre- or Co-requisites: BHS 110, PSY 102 and PSY 203.

#### CMH 203 CMH PRACTICUM III

1 Lecture 8 Lab 3 Credit Hours(s)

Students will experience an extended placement at a mental health or social services agency. Emphasis will be placed on understanding atypical development and on treatment interventions. Students are also required to attend a weekly seminar class, meet weekly with a Field Supervisor and complete log reports.

Pre- or Co-requisites: CMH 103 or CMH 104 and PSY 201 and PSY 202

#### CMH 204 CMH PRACTICUM IV

1 Lecture 8 Lab 3 Credit Hours(s)

Students will experience an extended placement at a mental health or social services agency. Emphasis will be placed on understanding atypical development, developing treatment interventions and on special issues in the field of mental health. Students are also required to attend a weekly seminar class, meet weekly with a Field Supervisor and complete log reports.

Pre-requisites: CMH 103 or CMH 104.

#### CMH 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of community mental health or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### CMH 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to CMH 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### CMH 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to CMH 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### CONSTRUCTION TECHNOLOGY

#### CNS 240 CAPSTONE PROJECT

1 Lecture 6 Lab 4 Credit Hours(s)

CNS240 is a culmination of the Construction Technology student's studies at the college. Students will work in groups with the Architectural Technology students to develop a project from project development through schematic design and design development through construction drawings. CNS students will be responsible for a partial set construction drawings of the same building and a building materials takeoff and cost estimates of the building. Both groups of students will prepare a booklet of product data sheets for their projects. Building types include small schools, apartment houses, office buildings, department stores, and dining halls. All of the drawings for this course will be prepared on the computer using the AutoCAD system.

Prerequisite: ARC 205

#### CNS 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Study plans will include research, analysis, and presentations or other projects, which advance the student's knowledge and competence in the field of architectural technology. The student's time commitment will be approximately 35-50 hours.

1 Lecture 0 Lab 1 Credit Hour

#### CNS 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to CNS 271, except that the student's time commitment to the project will be approximately 70-90 hours.

2 Lecture 0 Lab 2 Credit Hours

#### CNS 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to CNS 271, except that the student's time commitment to the project will be approximately 105-135 hours.

3 Lecture 0 Lab 3 Credit Hours

## COMMUNICATIONS MEDIA

### COM 100 COM INTRODUCTORY SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

This course is an overview of the communications program (philosophy, goals, achievements, and standards). It will explore communications and media arts fundamentals, planning essentials, career opportunities, curriculum management, current communications issues, trends and directions, and characteristics for success in the communications and media arts field.

### COM 101 INTRO TO MEDIA COMMUNICATION

2 Lecture 2 Lab 3 Credit Hours(s)

COM 101 is a foundation course in the Communications and Media Arts Program. It has a strong theoretical component that asks students to examine and critically analyze the visual, auditory and narrative components of audio-visual media. In the lab sections of this course, student apply the concepts from the lectures as they learn the basic techniques of studio television production and design an appropriate lighting and shooting style for an original short piece that evolves from the students' personal experiences. In the audio module of this course, students use sound objects to create narrative soundscapes. COM 101 provides an introduction to media aesthetics, which empowers students to become both conscious content creators of media and active, literate viewers of media.

### COM 103 THE ART AND CRAFT OF EDITING

2 Lecture 2 Lab 3 Credit Hours(s)

This course is an introduction to the basic principles, aesthetics, and techniques of film and video editing. Students will work with a non-linear computer-based video editing program to create a variety of short projects that illustrate different editing techniques.

### COM 110 BASIC VIDEO PRODUCTION

2 Lecture 2 Lab 3 Credit Hours(s)

The course is an introduction to field video production that familiarizes students with the basic principles, theories and techniques in video production. Students will construct storyboards, write scripts, direct shoots, and edit their own projects using equipment provided by the College.

Prerequisites: COM 101 with a grade of C or better and COM 103.

### COM 120 INTRO TO MEDIA WRITING

3 Lecture 0 Lab 3 Credit Hours(s)

Com 120 is an introductory course that familiarizes students with the basic principles and techniques of writing for the media: including newspapers, film, TV news, sitcoms, episodic drama, public relations and the

internet. Students will practice various forms of media script writing.

Prerequisite: ENG 101.

### COM 140 MEDIA AND SOCIETY

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed to present students with a comprehensive history of world mass communications and media's impact on society throughout the world. The course will present the impact of media technology on culture and how the structure and organization of the media industry influences content. How "new media" have changed the way we see the world, altered the way we get information, and colored the way other cultures view American society will also be explored.

### COM 210 VISUAL EFFECTS - MOVING IMAGE

3 Lecture 2 Lab 4 Credit Hours(s)

This course is an introduction to the theory and techniques of visual effects for moving images. Emphasis is placed on constructing visual stories. Basic principles and techniques of visual effects production, opening sequences and titles for film, television, video and video for the internet are explored. Using compositing programs, students are introduced to the creative process of developing digital visual effects from storyboard to final video.

Prerequisites: COM 103, COM 110 with a grade of C or better, COM 120.

### COM 211 DIGITAL FILMMAKING

3 Lecture 3 Lab 4 Credit Hours(s)

In this course in video production and visual effects, students collaborate to write a screenplay for a short digital film that will showcase their skills in video production, editing and digital effects. The course will focus on exercises designed to bring visual richness and conceptual depth to the student's work. In addition to the collaborative assignment, students will complete a variety of individual assignments including: a term paper, an oral report and a DVD portfolio of work they completed in the COM Program.

Pre-requisites: COM 210

### COM 221 MEDIA STRATGS FOR PUBL RELATNS

3 Lecture 2 Lab 4 Credit Hours(s)

This second year concentration course introduces students to concepts and theories in public relations and its connective relationship to journalism. Students will begin applying some of the media skills that they have developed in the COM Program to support public relations efforts for publicizing events on and off campus. Lectures will focus on the relationship between journalism and public relations, public relations planning, media writing for PR and journalism, standards and practices

in the PR industry and traditional media, persuasion theory, organization and structure of media networks and effective message distribution in the media, including the utilization of weblogs, YouTube, and other Internet outlets.  
Pre-requisites: COM 120

#### COM 233 SOUND DESIGN & TECH FOR MEDIA

3 Lecture 2 Lab 4 Credit Hours(s)

The course is a study of the science and art of sound in the context of media production. A strong theory component examines the behavior of sound, basic room acoustics, the design and use of microphones, recording technologies, and sound editing/production systems. Lab projects involve field sound effects recording, recording of dialogue and voice, and combining various sound elements to create sonic structures such as those used in film, television, radio and games.

Prerequisite: COM 101, MUS 104, or MUS 115

#### COM 234 BASIC MUSIC PRODUCTION

3 Lecture 3 Lab 4 Credit Hours(s)

The course covers the principles of studio and field music recording using stereo and multi-track techniques. It includes editing, mixing, recording to CD and the use of MIDI instruments. Note: This course covers some advanced technical concepts.

Note: Students must register for both lecture and lab.

Pre-requisite: COM 233 or permission of instructor.

#### COM 243 WORLD FILM

3 Lecture 1 Lab 3 Credit Hours(s)

This course offers an introduction to the history of film and will focus primarily on World Cinema: film from non-Western nations and films by non-traditional voices in the US and Europe. Lectures will relate significant political events and social issues to current and historical films. The objective of this course is to familiarize students with the history, institutions, economy, society and culture of other world civilizations through screening and discussing narrative films from these cultures.

#### COM 244 SCREENWRITING

3 Lecture 1 Lab 3 Credit Hours(s)

This intermediate level course introduces students to the theory and techniques of screenwriting with extensive lectures on how to construct a story. The objective is to familiarize students with the basic principles and techniques of writing fiction for film and television. Students will develop original stories and acquire a basic understanding of how to write a screenplay.

Prerequisites and/or corequisites: ENG 101 with a C or better and co-requisite ENG 102.

#### COM 246 AMERICAN CINEMA

3 Lecture 0 Lab 3 Credit Hours(s)

This cinema studies course introduces students to the history of American Film through lectures and screenings from the earliest dramatic films and silent comedies to the golden age of Hollywood, Film Noir, American Indie film and more contemporary genres.

#### COM 249 TELEVISN PRODTN / TELEVSN NEWS

3 Lecture 2 Lab 4 Credit Hours(s)

In this course students are introduced to concepts and techniques for multi-camera and single-camera television or television news production. Students work collaboratively in the television studio to create episodes for a television program, then break into small groups to shoot on location and produce either dramatic or non-fiction news-style projects. Students learn the elements of television production including: screenwriting, story boarding, casting, directing on-camera talent, camera angles, framing, lighting, and editing, composing music, adding sound effects and creating titles. They will be required to work on each other's projects as production crew, so there will be additional time requirements outside of the scheduled classes.

Prerequisites: COM 110 and ART 110, or ART 112 or ART 150 or ART 157.

#### COM 250 ADVANCED VIDEO PRODUCTION

3 Lecture 3 Lab 4 Credit Hours(s)

This course in video production and public relations emphasizes visual storytelling, client relations, active listening, problem solving and entrepreneurship. As part of this course, students meet with local non-profit organizations and design a video project to address a communication problem. Students work in small groups to script, shoot and edit these projects. Students will also complete a variety of individual assignments including a budget, a contract, a term paper, an oral report and a DVD portfolio of their work.

Prerequisites: COM 221 or COM 249.

#### COM 261 COMMUNICATION INTERNSHIP

1 Lecture 8 Lab 3 Credit Hours(s)

This course enables students to complete an internship in the media or communications industry of the student's choice. The internship must be completed under the direct supervision of a full-time employee in any aspect of radio or TV broadcasting, film production, video production, newspapers, public relations, advertising, media sales or other related areas.

Prerequisites: COM 110 and permission of the Program Chair.

#### COM 262 DOCUMENTARY PRODUCTION I

3 Lecture 3 Lab 4 Credit Hours(s)

In this course, students work collaboratively to develop documentary projects. Lectures will address advanced

techniques in videography, lighting, logging tapes, editing, and production of graphics appropriate for documentary film.

Pre-requisites: COM 110

### COM 263 DOCUMENTARY PRODUCTION II

3 Lecture 3 Lab 4 Credit Hours(s)

In this course in Documentary Journalism, students work collaboratively to complete a half-hour documentary which will air on Channel 42. This course provides an advanced learning experience, where students apply the skills they have gained in the COM Program in audio and video production, visual effects, broadcast journalism and public relations in the creation of one ambitious project. Lectures will focus on advanced techniques in production, direction, and production management for broadcast journalism.

Prerequisite: COM 262.

### COM 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, or work experience in the field of communications media. The student's time commitment to the project will be approximately 35-50 hours.

### COM 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to COM 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### COM 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to COM 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### COM 280 OVERSEAS DOCUMENTARY PRODUCTION

2 Lecture 2 Lab 3 Credit Hours(s)

This hands-on course familiarizes students with the basic principles and techniques of overseas documentary production. Students will research the culture and location for the documentary project, then they will develop skills in camerawork, lighting, sound recording, scriptwriting, directing shoots and logging and digitizing footage as they shoot in another country. When students return to Dutchess, they will begin post-production, create graphics and titles and complete a half-hour documentary to be

screened at DCC and aired on local cable channels. The focus and subject of the documentary projects and the international locations will vary.

Prerequisite: Permission of Department.

## COMPUTER SCIENCE

### CPS 100 COMPUTER SCIENCE INTRO SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

Designed specifically for first semester students in the CPS curriculum who are also enrolled in CPS 141 (Introduction to Computer Science and Programming), this course will provide a broad based introduction to the discipline of computer science. Some topics examined will be the history of computer science, computer ethics, and the exploration of some of the different educational and career paths in computer science. The course will also provide information on college study skills and the effective utilization of college resources.

Co-requisite: CPS 141.

### CPS 141 INTRO-COMPUTER SCIENCE/PROGRAMMING

4 Lecture 0 Lab 4 Credit Hours(s)

Primarily for students in the Computer Science Curriculum. This course introduces the fundamental concepts of programming from an object-oriented perspective. Topics include simple data types, control structures, basic input/output, arrays, strings, methods, classes, and objects. Problem solving techniques, algorithm design and implementation strategies are also covered. Students will be introduced to object-oriented techniques using the programming language Java. No prior programming experience is assumed.

Co-requisite: MAT184 or higher level math course. Students should also have college level reading and writing skills.

### CPS 142 ADVANCED PROG & DATA STRUCTURE

3 Lecture 0 Lab 3 Credit Hours(s)

This course continues the coverage of object oriented programming with an emphasis on using object oriented techniques to develop fundamental data structures. Topics presented include: principles of object-oriented programming (inheritance, polymorphisms and encapsulation); exception handling; stream I/O; data structures (arrays, linked lists, stacks, queues); recursion; searching and sorting algorithms; analysis of algorithms; developing and using generic classes and collections. GUI Applications are also covered.

Pre-requisite: CPS141 with a C or better.

### CPS 231 DATA STRUCTURES

3 Lecture 0 Lab 3 Credit Hours(s)

The major emphasis of this course is on the introduction, implementation and application of various

data structures, including: stacks, queues, linked lists trees and graphs. Additional topics include analysis of algorithms, sorting and searching techniques and hashing.

Prerequisite: CPS 142 with a grade of C or better.

#### CPS 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of computer science or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### CPS 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to CPS 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### CPS 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to CPS 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### CRIMINAL JUSTICE

#### CRJ 100 CRJ INTRODUCTORY SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

A seminar designed to provide criminal justice students with the opportunity to learn and practice strategies that will enhance their ability to successfully complete their educational program in the field of criminal justice. Emphasis will be on identification and clarification of personal goals, career planning, curriculum planning and study techniques. It will also explore effective program management and maximum utilization of college resources.

#### CRJ 101 INTRO TO SECURITY ADMIN

3 Lecture 0 Lab 3 Credit Hours(s)

A survey of the principles, methods and techniques of modern private security, including commercial, retail, residential, institutional, industrial settings, etc. An examination of methods of risk management and analysis; security surveys; legal powers and limitations. Prevention of loss from accidents, violence, criminal/civil offenses will be considered, as well as selected aspects of the Occupational Safety and Health Act. Proprietary policy, internal security and problems of civil liability will also be studied. This course meets and exceeds pre-

assignment training required for security guards in NY State.

#### CRJ 107 COMMUNCATN & CRIM JSTC PROCESS

3 Lecture 0 Lab 3 Credit Hours(s)

An examination of criminal justice report writing as a process, with emphasis on blending information, form, and written and oral expression to develop a clear, concise and accurate account of an incident/case. Development of the field notebook in investigations, recording details of search, conducting and presentation of interviews/interrogations; recording of relevant facts and details for purposes of reference and accountability. The process of court presentation and an explanation of factual material will be discussed in the classroom setting. Preparation and presentation of courtroom testimony, and the interview and interrogation process will be considered. Oral presentations to a criminal justice audience will be practiced.

#### CRJ 141 INTRO TO CRIMINAL JUSTICE

3 Lecture 0 Lab 3 Credit Hours(s)

A study of the history and philosophy of law and criminal justice and its evolution to modern times, including the development of organized law enforcement, corrections, criminal and civil law (e.g., Natural law, Common law, Substantive law, Statute law, etc.) The administration of justice is studied as a total system within American society.

#### CRJ 201 CRIMINAL JUSTICE ORG AND ADMIN

3 Lecture 0 Lab 3 Credit Hours(s)

A study of organizational principles and theory; applications to the law enforcement agency; motivation; productivity; psychological aspects of police management/supervision. Planning processes; decision-making; manpower deployment, patrol methodology, development of police/community relations. Recruitment selection and training.

Prerequisite: CRJ 141 or permission of department head.

#### CRJ 205 FORENSIC PHOTOGRAPHY

3 Lecture 0 Lab 3 Credit Hours(s)

An introduction to forensic photography. Fundamentals of the medium and practical applications of the elements involved will be taught including the use of equipment, film processing/printing and lighting. Consideration of protocol in court testimony; special requirements of crime and accident scenes; interview/interrogation, surveillance and video techniques will be covered, including a survey of case law.

#### CRJ 206 CRIMIN & SCIENT INVSTGTN

3 Lecture 0 Lab 3 Credit Hours(s)

A study of techniques and procedures utilized in criminal investigation; survey of instrumentation, identification/processing of trace evidence; use and acceptability

of electronic surveillance; use of informants; role of expert witness; special problems in investigations (e.g., organized crime, narcotics traffic, etc.).

Prerequisite: CRJ 141 or permission of department head.

### CRJ 253 ETHICS IN CRIMINAL JUSTICE

3 Lecture 0 Lab 3 Credit Hours(s)

A study of ethical issues that the contemporary criminal justice practitioner faces; various moral and ethical considerations faced in the different criminal justice settings including law enforcement, courts and corrections. Included will be: individual moral responsibility and behavior, falsification and lying, abuse of force and use of individual selective enforcement.

Pre-requisite: CRJ 141 or permission of Department Head

### CRJ 261 WHITE COLLAR CRIME

3 Lecture 0 Lab 3 Credit Hours(s)

This course will explore both the substantive crimes of 'white collar' workers as well as investigative techniques related to these types of crime. The course will emphasize the key characteristics of economic/white collar crime, including the extent of seriousness, types of offenses and offenders, victim concerns and organized efforts to control and prevent these crimes. Case preparation for prosecution and presentation will engage the judicial process.

Prerequisite: CRJ 141 or permission of department head.

### CRJ 265 CRIMINAL LAW AND PROCEDURE

3 Lecture 0 Lab 3 Credit Hours(s)

A study of federal, state and local law that provides an understanding of the nature and scope of those statutes that law enforcement personnel are mandated to enforce. This will include not only crimes traditionally referred to as 'street crime', but also with equal emphasis on the nature, extent and enforcement of white collar crime.

Prerequisite: CRJ 141 or permission of department head.

### CRJ 266 CONTEMP ISS/PROB CRIMNL JUSTICE

3 Lecture 0 Lab 3 Credit Hours(s)

An examination of the significant problems and issues impacting the various elements of the criminal justice system. Included will be perspectives on cause and effect relationships, media influence, influence of socio-political structure/events, evolving trends and implications for the future.

Prerequisites: CRJ 141 and a minimum of 9 additional credits of CRJ courses.

### CRJ 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental

approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of criminal justice or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### CRJ 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to CRJ 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### CRJ 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to CRJ 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## COLLEGE SKILLS MATH

### CSM 093 BASIC MATH SKILLS FOR NUR

2 Lecture 0 Lab 2 Credit Hours(s)

A review of whole numbers, fractions, decimals, percents, ratios, Roman numerals, the metric and apothecary systems of measurement, and the conversions between them. Intended for Nursing students found to be in need of math remediation prior to enrollment into NUR 105. Students will also be required to complete CAI modules in the Learning Center at hours to be arranged (one to three additional hours per week).

NOTE: CSM 093 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

### CSM 094 BASIC MATH:PRE-ALG/BUS SKILLS

3 Lecture 0 Lab 3 Credit Hours(s)

An intensive review of whole numbers, fractions, decimals, percents, ratios and proportions, signed numbers and elementary algebraic concepts. Intended for the student who will enroll in MAT 091 before proceeding with MAT 109, higher algebra or technical math. Students will also be required to complete CAI modules in the Learning Center at hours to be arranged (one to three additional hours per week).

NOTE: CSM 094 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

Prerequisite: Any student who has ever taken the Geometry Regents, or ever taken the Algebra 2 and Trig Regents, or ever taken the Common Core Algebra 2 Regents should be placed at a higher level than CSM094.

Any student who has ever earned 55 or higher on the Common Core Regents Algebra 1 or ever earned 50 or higher on the Integrated Algebra Regents should be placed higher than CSM094. Student should also have earned below 25 on Accuplacer Elementary Algebra Score AND below 31 on Accuplacer Arithmetic AND below 36 on Compass Pre-Algebra AND below 23 on Compass Algebra.

## COLLEGE STUDY SKILLS

### CSS 071 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

CSS 071 is a basic learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on developmental programs in study skills, language, reading, computational and math skills, science and the research process. The student's time commitment to the project will be approximately 35-50 hours.

NOTE: CSS 071 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

### CSS 072 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

This course is similar to CSS 071, except that the student's time commitment to the project will be approximately 70-90 hours.

NOTE: CSS 072 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

### CSS 073 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

This course is similar to CSS 071, except that the student's time commitment to the project will be approximately 105-135 hours.

NOTE: CSS 073 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

### CSS 085 COLLEGE SUCCESS SKILLS I

2 Lecture 0 Lab 2 Credit Hours(s)

This course prepares students for success in college. Course content focuses on building students' strengths in employing effective study strategies and academic skills, developing self management skills and fostering critical thinking skills necessary to successfully complete college

level courses. The course utilizes computer-assisted instruction to enhance students' learning experience. In addition to class time, the course requires that students spend at least one-hour per week in a structured lab period in the Student Academic Success Center (H315). Note: CSS085 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

### CSS 095 COLLEGE SUCCESS SKILLS II

3 Lecture 0 Lab 3 Credit Hours(s)

This course prepares students for success in college. Course content focuses on building students' strengths in employing effective study strategies and academic skills, developing self management skills and fostering critical thinking skills necessary to successfully complete college level courses. This course deals directly with the content of a designated discipline course and encourages students to apply the skills gained to all college courses.

Note: CSS095 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

### CSS 097 ADVANCED STUDY SKILLS

2 Lecture 0 Lab 2 Credit Hours(s)

CSS 097 is an advanced college study skills course intended primarily for two groups of students; those needing some instruction in essential study skills but not as thorough or basic an approach as offered in CSS 095 and those having completed CSS 095 and desiring a second semester of study skills. The course will include practical work with note-taking, textbook mastery, library research, report writing, test-taking strategies and the development of vocabulary. When taught in the content-correlated mode, CSS 097 will deal directly with the content of a designated credit course, such as BHS 103, HIS 102, HIS 104, GOV 121, etc.

NOTE: CSS 097 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

## DANCE

### DAN 101 FOUNDATIONS OF DANCE

2 Lecture 2 Lab 3 Credit Hours(s)

This course is an introduction to dance as an art form and its role in history and society. Classes include the fundamentals of movement, the elementary techniques of ballet, modern and jazz dance, and exploration of the elements of rhythm, dynamics and spatial awareness



through simple composition and improvisational dance studies.

#### DAN 102 BALLET TECHNIQUE

0 Lecture 4 Lab 2 Credit Hours(s)

Course content includes the basic positions and adagio and allegro movements of classical ballet. Movement in ballet has a controlled yet graceful quality, which is acquired through repetition of standardized ballet technique. Throughout the course, the student is encouraged to experience and appreciate the art of ballet as a performing art.

#### DAN 104 MODERN DANCE TECHNIQUE

0 Lecture 4 Lab 2 Credit Hours(s)

This course consists of the technique, history and theory of modern dance. Emphasis is on conditioning the body, developing beginning modern dance skills and acquiring a basic movement vocabulary to promote creative exploration. Students may receive two (2) credits of Physical Education for this course.

#### DAN 106 JAZZ DANCE TECHNIQUE

0 Lecture 4 Lab 2 Credit Hours(s)

Course content includes the techniques, history and styles of jazz dance. Development of beginning skills in jazz dance technique with emphasis on body isolations and rhythmic phrasing. Students may receive two (2) credits of Physical Education for this course.

#### DAN 107 Dance Improvisation

0 Lecture 2 Lab 1 Credit Hours(s)

This class includes beginning dance and movement improvisation as a compositional and performing technique, and the development of skill in improvising dance movement and structuring dance improvisations.

#### DAN 108 DANCE HISTORY

3 Lecture 0 Lab 3 Credit Hours(s)

The history of dance as a cultural medium is explored with specific attention to the development of dance from prehistoric cultures to the evolution of dance in recent centuries, along with a study concerning theories of movement and influences of Oriental, Indian and African dance forms on Western Cultures.

#### DAN 109 TAP DANCE

0 Lecture 2 Lab 1 Credit Hours(s)

This introductory course covers the basic steps of tap dance technique. Students will learn coordination, rhythmic variations, dynamics, and performance skills through a series of tap dance combinations. Students will also begin to develop creative ability through tap improvisation.

#### DAN 146 PERFORMANCE & APPLIED DANCE I

0 Lecture 3 Lab 1 Credit Hours(s)

This course emphasizes the development of dance performance skills. Within the structure of the course, the student is exposed to various performance techniques as well as learning specific choreography culminating in a dance concert.

#### DAN 147 PERFORMANCE & APPLIED DANCE II

0 Lecture 3 Lab 1 Credit Hours(s)

This course further emphasizes the development of dance performance skills. Within the structure of the course, the student is exposed to various performance techniques as well as learning specific choreography culminating in a dance concert.

#### DAN 203 DANCE CHOREOGRAPHY & COMPOSTN

0 Lecture 2 Lab 1 Credit Hours(s)

This course consists of dance choreography in practice and theory. Emphasis is on the student finding and creating original movement, creating a dance from that movement and teaching the dance to others in the class. Prerequisites: DAN 146 or DAN 147 or DAN 102 or DAN 104 or DAN 106

#### DAN 246 PERFORMANCE & APPL DANCE III

0 Lecture 3 Lab 1 Credit Hours(s)

This course further emphasizes the development of dance performance skills. Within the structure of the course, the student is exposed to various performance techniques as well as learning specific choreography culminating in a dance concert.

#### DAN 247 PERFORMANCE & APPLIED DANCE IV

0 Lecture 3 Lab 1 Credit Hours(s)

This course further emphasizes the development of dance performance skills. Within the structure of the course, the student is exposed to various performance techniques as well as learning specific choreography culminating in a dance concert.

#### DAN 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of dance or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### DAN 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to DAN 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### DAN 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to DAN 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### EARLY CHILDHOOD

#### ECH 101 INTRO TO EARLY CHILDHOOD ED

3 Lecture 0 Lab 3 Credit Hours(s)

An introductory course focusing on the concepts and foundations of early childhood from infancy through grade two with special attention paid to the child from three to five years of age. Topics include: types of programs and differing philosophies, basics of child development, developmental and learning theory, the role of the teacher, observation, guidance, parent-teacher relationships, environment and curriculum basics.

Pre- or Co-requisite: ECH 102.

#### ECH 102 INTRO SEM: PROG FOR YNG CHLDRN

0 Lecture 3 Lab 1 Credit Hours(s)

An orientation to the Early Childhood Program and the college community, followed by a study of programs for young children developed through observation in the DCC Laboratory Nursery School and a variety of public and private early childhood settings. Emphasis will be on observation and on components of programs for children birth through 8 years with emphasis on ages 2 through 6.

Pre- or Co-requisite: ECH 101.

#### ECH 107 PREPARING TO TEACH YOUNG CHLDN

2 Lecture 0 Lab 2 Credit Hours(s)

The study of the skills and concepts needed to enter the classroom as a teacher of young children emphasizing the translation of theory into practice. Topics include: communicating with children and parents, groups and transition times, daily routine, guidance, developing a lesson plan, daily and weekly planning methods, health and safety, initial consideration of evaluation and portfolios as well as personal philosophy and professionalism.

Note: This course must be taken with or prior to ECH 108.

Prerequisites: ECH 101, ECH 102.

#### ECH 108 EARLY CHILDHOOD PRACTICUM I

1 Lecture 3 Lab 2 Credit Hours(s)

Students will experience an extended placement at an early childhood program in the community or at the Laboratory Nursery. Emphasis will be placed on becoming part of a team, assuming routine responsibilities in the classroom as well as specific

planning for activities. Students will also attend a weekly seminar class, meet at regularly scheduled conferences during the semester with a field supervisor and complete logs and written assignments as designated.

Notes: (1) Transportation to and from practicum sites is the responsibility of the student. (2) This course is the prerequisite of ECH 205/206 with a grade of 'C' or better.

Prerequisites: ECH 101, ECH 102.

Pre- or Corequisite: ECH 107.

#### ECH 111 CURRIC ACTIV FOR YOUNG CHLDRN

2 Lecture 0 Lab 2 Credit Hours(s)

Develops and fosters a creative approach to appropriate activities relative to the young child's total development. A study of meanings and values, as well as the development of skills for practical application. Through play, art, music and rhythms, science and nature, social studies and related activity areas, the student is given the opportunity to explore the possibilities of varied teaching/learning media.

#### ECH 120 INFANT AND TODDLER CURRICULUM

3 Lecture 0 Lab 3 Credit Hours(s)

This course will explore infant/toddler development, developmentally appropriate activities designed to promote physical, intellectual, social and emotional growth, curriculum development, teaching techniques and working with diverse infant and toddler families.

#### ECH 121 INFANT & TODDLER CURRIC FLDWRK

0 Lecture 3 Lab 1 Credit Hours(s)

This course is designed to complement academic course content in ECH 120, Infant and Toddler Curriculum. Students will observe and interact with infants and toddlers. The placements will be made in settings for children ages six weeks through toddlerhood and arranged by the field supervisor assigned. Transportation to field sites is the responsibility of the student.

Pre- or Co-requisite: ECH 120.

#### ECH 131 IN-SERVICE PREP FOR CDA I

4 Lecture 6 Lab 6 Credit Hours(s)

This course will be based on the guidelines for NAEYC's CDA credentialing program. This course, in conjunction with ECH 132, will result in the issuing of a statement of applied academic credit by DCC and will prepare the student for the CDA assessment process of the Council for Early Childhood Professional Recognition (part of NAEYC). The lecture portion of the course will include the study of: introduction to Early Childhood, how children learn and grow, safe and healthy environments, social emotional development, infant/toddler development and curriculum. Additionally, there will be a practicum component at the student's current site of employment.

Assignments and observation by field supervisors will support classroom topics.

Prerequisite: Permission of instructor and student must be employed in the field of early childhood.

#### ECH 132 IN-SERVICE PREP FOR CDA II

4 Lecture 6 Lab 6 Credit Hours(s)

This course will be based on the guidelines for NAEYC's CDA credentialing program. This course, in conjunction with ECH 131, will result in the issuing of a Statement of Applied Academic Credit by DCC and will prepare the student for the CDA assessment process given by the Council for Early Childhood Professional Recognition (part of NAEYC). The lecture portion of the course will include the study of: physical and intellectual growth, relationships with families, creativity and aesthetics, art and the young child, play and creativity, planning developmentally appropriate activities. Additionally, there will be a practicum component at the student's current site of employment. Assignments and observation by field supervisors will support classroom topics.

Prerequisite: ECH 131.

#### ECH 205 ECH COMMUNITY PRACTICUM

1 Lecture 9 Lab 4 Credit Hours(s)

Students will experience an extended placement at an early childhood program in the community (two mornings per week). Emphasis will be placed on the workplace experience, including working with and relating to all members of staff, understanding the program in the context of the community it serves, working within any fiscal constraints of the program and respecting the educational philosophy of the program in which they are placed. Students will be required to execute learning experience presentations and will be exposed to practical experience in all aspects of program planning for young children. Students will also be required to attend a weekly seminar class, meet at regularly scheduled field supervisor conferences and complete written assignments as assigned.

Notes: (1) Either ECH 205 or ECH 206 must be taken as a corequisite of ECH 214. (2) Transportation to and from practicum sites is the responsibility of the student. (3) Students are required to submit a completed physical examination form within two weeks of the beginning of the semester. (4) Students must register for both a lecture and a lab

Prerequisites: Successful completion of ECH 107 and completion of ECH 108 with a grade of C or better.

#### ECH 206 ECH LAB NURSERY PRACTICUM

1 Lecture 12 Lab 5 Credit Hours(s)

Students will experience an extended placement at the DCC Laboratory Nursery. Emphasis will be placed on translating theory into practice through learning experience presentations, curriculum planning, and

practical experience in all aspects of programming for young children under supervision of a master teacher. Students will also be required to attend a weekly seminar, a weekly staff meeting following the seminar, meet with the master teacher before and after each practicum session to prepare the classroom environment and discuss classroom issues. Students will complete logs and written assignments and tasks as designated.

Notes: (1) Either ECH 205 or ECH 206 must be taken as a corequisite of ECH 214. (2) Transportation to and from practicum sites is responsibility of the student. (3) Students are required to submit a completed physical examination form within two weeks of the beginning of the semester. Prerequisites: Successful completion of ECH 107 and completion of ECH 108 with a grade of C or better.

#### ECH 212 LANG & LIT IN EARLY CHILDHOOD

3 Lecture 0 Lab 3 Credit Hours(s)

A survey and evaluation of literature for young children, including discussion of related topics and controversial issues. Focusing on children's picture storybooks, students will evaluate text, illustration, relevance to child development and content as well as the development of language through literature, techniques for sharing literature, and major authors and illustrators.

Prerequisite: ENG 101.

#### ECH 214 DEV APPROP PAC: OBSRV & ASSESS

3 Lecture 0 Lab 3 Credit Hours(s)

Through observation, assessment and study students will examine the development of children ages birth through 8 years of age in the areas of emotional, social, physical, cognitive, language and creative development. Class work, reading and child observations will be used by the students to consider implications for developmentally appropriate curriculum planning, classroom management and organization.

Co-requisites: ECH205 or ECH 206 or EED 207.

#### ECH 254 DIVERSE ECH/ELEM CLASSROOMS

3 Lecture 0 Lab 3 Credit Hours(s)

Students will examine historical perspectives and contemporary issues facing early childhood/childhood educators in America today. Topics will include beginning the development of a philosophy of education through the examination of trends and alternative teaching philosophies, diversity in the classroom, developing an anti-bias curriculum, collaborating with culturally diverse families and New York Learning Standards.

Prerequisite: Either ECH 107 and ENG 102 or EED103 with a grade of B- or better and ENG 101 with a grade of B or better.

#### ECH 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of early childhood or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### ECH 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)  
Similar to ECH 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### ECH 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)  
Similar to ECH 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### ECONOMICS

#### ECO 105 ECONOMIC ISSUES

3 Lecture 0 Lab 3 Credit Hours(s)  
This course provides students with the fundamentals of economic literacy and understanding. Students will explore such major economic issues as monopolistic power, inflation and recession, government spending and taxation, the banking system and international trade. This course designed for students who anticipate no further formal training in economics.

#### ECO 121 ENVIRONMENTAL ECONOMICS

3 Lecture 0 Lab 3 Credit Hours(s)  
This course examines the key environmental issues facing our planet using basic tools of economic analysis. Although the perspective is global, an emphasis is placed on the disproportionate impact of environmental challenges on the developing world. The course examines pollution, population growth, climate change, water scarcity, international trade, food and resource availability, and policies of sustainable development.

#### ECO 201 MICRO ECONOMICS

3 Lecture 0 Lab 3 Credit Hours(s)  
Supply and demand in markets for goods and for factors of production. Consumer behavior. Market structures. Price determination in perfectly competitive and imperfectly competitive markets.

#### ECO 202 MACRO ECONOMICS

3 Lecture 0 Lab 3 Credit Hours(s)  
A description of the essential features of the American economic system. The theory of the determination of the

level of national income and applications to the problems of inflation, depression and economic growth. The role of monetary and fiscal institutions in implementing public economic growth. The role of the United States in the international economy.

Prerequisite: ECO 201.

#### ECO 218 LABOR RELATIONS

3 Lecture 0 Lab 3 Credit Hours(s)  
An introductory study of labor relations and labor's role in the American economy. Topics include the labor force, labor-management legislation, history and structure of unions, collective bargaining, labor market economics, personnel practices and income security laws.

#### ECO 221 INTRO FINANCL & SECURITY MRKTS

3 Lecture 0 Lab 3 Credit Hours(s)  
This course is intended to serve as an introduction to financial markets and the various securities and instruments traded on these markets. It is intended to be an introduction to the subject of investing for the individual investor.

#### ECO 224 INTERNATIONAL ECONOMICS

3 Lecture 0 Lab 3 Credit Hours(s)  
This course will provide students with a comprehensive exposition of the basic principles of international economics. The focus will be on the principle of comparative advantage and gains from trade, protectionism, the balance of payments, exchange rate determination, international capital markets and the international trade policy. The course will also address international economic problems and issues facing the United States and the world in the 21st century.

Note: It is recommended that students take ECO 201 and ECO 202 before taking ECO 224.

#### ECO 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)  
A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of economics and related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### ECO 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)  
Similar to ECO 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### ECO 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ECO 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## ELEMENTARY EDUCATION

### EED 103 EARLY CHLDHOOD/CHLDHOOD OBSERV

0 Lecture 3 Lab 1 Credit Hours(s)

This course is intended for students anticipating a career in education through a series of guided observations in diverse early childhood and elementary classrooms, designed to support the students' introduction to differing aspects of teaching these age groups. This should be the first course taken as a beginning student of teaching in order to learn about children from preschool through upper elementary. There will be a minimum of 20 hours of observations supported by class time on campus to prepare for and then discuss observations. (1) The observations will be arranged by the instructor. (2) Transportation to and from observations is the responsibility of all students. (3) Students are required to complete and submit a physical examination form within four weeks of the beginning of the semester.

Note: This should be taken in the student's first semester.

### EED 115 SYMBOLIC REP LANGUAGE & LITRCY

3 Lecture 0 Lab 3 Credit Hours(s)

This course explores the interaction between symbolic development, language and literacy acquisition in children birth through five years of age and development of developmentally appropriate strategies to encourage language and literacy in very young children. Students will continue to compile artifacts in a cumulative portfolio to be brought with them upon transfer to their upper level college for possible use in certification.

Co-requisite: EED116

### EED 116 FIELDWORK I

0 Lecture 3 Lab 1 Credit Hours(s)

This course is designed to complement academic course content in EED 115 – Symbolic Representation, Language and Literacy. Students will interact with children in infant, toddler, preschool or kindergarten classrooms and have a minimum of one observation in a classroom with an age group different from their regular placement. The placements will be made and arranged by the field supervisor assigned. Transportation to field sites is the responsibility of the student.

Co-requisite: EED 115

### EED 207 EED FIELDWORK II

0 Lecture 3 Lab 1 Credit Hours(s)

Designed to complement the academic course ECH 214 – Developmentally Appropriate Practice: Observations and

Assessment, this course allows students to participate in pre-school through second grade classrooms, developing competence in observing and assessing children's development and in classroom performance. Students will complete journals, written assignments and tasks as designated by the field supervisor. This course is for EED students only.

Note: (1) Transportation to and from practicum sites is the responsibility of the student.

(2) Students are required to submit a completed physical examination form within two weeks of the beginning of the semester.

Pre-Requisites: EED 115 and EED 116

Co-requisite: ECH 214 or permission of department

## ELECTRICAL TECHNOLOGY

### ELT 105 DC CIRCUITS

2 Lecture 2 Lab 3 Credit Hours(s)

An introductory course employing applied mathematics for circuit analysis. The fundamental concepts of current, voltage and resistance are the major components of the course. Topics: resistive circuits, Ohm's law, Kirchoff's laws, series circuits, parallel circuits, voltage divider, current divider, superposition, Thevenin Theorem, capacitance, inductance, RL and RC transient circuits, transient response.

Prerequisite: MAT 184 or concurrent enrollment therein.

### ELT 106 AC CIRCUITS

2 Lecture 2 Lab 3 Credit Hours(s)

A study of steady state response of circuits containing resistive, capacitive and inductive elements subject to sinusoidal excitation. Topics include sinusoidal characteristics, impedance, phasors, ac power, an introduction to 3-phase ac, single-source AC circuit analysis and resonance.

Prerequisites: ELT 105 and MAT 184, each with a grade of C or better.

### ELT 107 INTRO PROGRAMMING FOR AUTOMATION

2 Lecture 2 Lab 3 Credit Hours(s)

This course is a study of computer programming for both PC-based and microcontroller applications. Topics include common programming structures such as variables, decisions, repetition, and data files.

Corequisites: MAT 095 and MAT 096 and MAT 097 (Intermediate Algebra Part 1, 2, and 3) or MAT 099 (Intermediate Algebra Combined). It is recommended that ELT105: DC Circuits or PHS115: Fundamentals of Electricity be taken as a corequisite to this course, since many of the programming examples are based on circuits calculations.

### ELT 108 ELECTRONICS I

2 Lecture 2 Lab 3 Credit Hours(s)

This course is a study of active devices and their application in typical circuits. The devices studied are semiconductor diode, bipolar junction transistor and field effect transistor. Typical applications studied are rectifier power supplies and linear amplifiers.

Prerequisite: ELT 105 with a grade of C or better.

Corequisite: ELT 106.

#### ELT 115 DIGITAL FUNDAMENTALS

2 Lecture 2 Lab 3 Credit Hours(s)

An introductory course in the building, analysis, and testing of digital electronic circuits used in both computing and control system applications. Topics include binary numbers, binary codes, Boolean algebra, combinational logic, sequential logic, timers and counters, and an introduction to multiplexers, buffers and shift registers. Use of metering tools, such as the oscilloscope, and troubleshooting skills are a priority throughout the course. Prerequisites: Compass Algebra Score of at least 76, OR Integrated Algebra Regents within the last 2 years of at least 85, OR completed DCC Intermediate Algebra Parts I, II and III with a C or higher.

#### ELT 122 MANUF TOOLS AND PRACTICES

2 Lecture 2 Lab 3 Credit Hours(s)

The focus of this course is the use of and safety involved with tools used by electrical technicians in the field, particularly in manufacturing facilities. Topics include lecture and lab practice with safety equipment such as hazardous voltage protection equipment and lockout/tagout. Tools include hand drills, drill press, thread taps, hole saws, chassis punches, associated hand tools, applicable measuring tools. Students will practice their skills with exercises such as building and wiring an industrial control panel.

Pre- or Corequisites: ELT 105 with a grade of C or better or PHS 115 with a grade of B or better.

#### ELT 203 ELECTRIC POWER SYSTEMS

3 Lecture 0 Lab 3 Credit Hours(s)

A course in the transmission and distribution of electrical energy, with a concentration on the components of residential, commercial, and industrial scale electric power systems. Topics include three-phase delta and wye configurations, motor circuits, transformers, distribution and overcurrent protection equipment, and power systems studies.

Prerequisite: ELT106 or PHS115

#### ELT 211 SEMICONDUCTOR PROCESS TECH

2 Lecture 2 Lab 3 Credit Hours(s)

This course provides a detailed overview of semiconductor device fabrication. Topics include a review of semiconductor physics and device operations, device fabrication and various process modules. Process modules will focus on vacuum technology, silicon wafer,

lithography, deposition, hot process, doping, etching and metallization. Challenges in process integration and device technology will also be discussed. Students are also required to participate in field trips.

Prerequisites: CHE 111 and ENT 102, or ELT 108

#### ELT 213 ELECTRO-MECHANICAL DEVICES

2 Lecture 2 Lab 3 Credit Hours(s)

This course is a study of electro-mechanical devices, including motors, relays, mechanical gears and linkages, pneumatic components, robotics and an introduction to microsystems.

Prerequisite: ELT 106 or permission of department.

#### ELT 216 AUTOMATION SYSTEMS

2 Lecture 2 Lab 3 Credit Hours(s)

A study of the computer-based control systems found in a wide variety of industry applications, including their use in manufacturing processes. The course will include a review of control system components, including sensors, relay logic, and programmable logic controllers (PLCs), leading up to a complete study of microprocessor-based control systems.

Prerequisites: ELT213 with a grade of C or better.

#### ELT 218 ELECTRONICS II

2 Lecture 3 Lab 3 Credit Hours(s)

This course is designed to train students in the analysis and application of advanced electronic circuits. Topics include the DC and AC performance constraints of electronic circuits and the implications of those constraints, frequency response and Bode plots, basic electronic circuits using the operational amplifier such as amplifier circuits and comparators, active filter circuits, and oscillator circuits. Practical applications are stressed throughout such as analog-to-digital conversion, digital-to-analog conversion, process control, and modulation. Students will construct, test and troubleshoot circuits, and analyze circuits by computer simulation.

Prerequisite: ELT 108 or departmental permission

#### ELT 231 PHOTOVOLTAIC SYSTEMS

3 Lecture 0 Lab 3 Credit Hours(s)

An introduction to photovoltaic applications, design, and practices. Topics covered include photovoltaic industry history and trends, solar radiation, characteristics of solar cells and modules, system components, system sizing and design, economic analysis, electrical and mechanical integration, applicable building codes, regulations and safety, and utility interconnection. 3 credits.

Prerequisites: ELT 106 (AC Circuits) or PHY 152 (or equivalent) or permission of instructor.

#### ELT 250 ELT CAPSTONE PROJECT

1 Lecture 3 Lab 2 Credit Hours(s)

A project-oriented course with design and analysis components. Students propose and produce projects using a combination of theory from analog, digital and electro-mechanical disciplines. Students will use technology for computer simulation and generating schematics.

Prerequisites: ELT218 with a grade of C or better and ELT 115.

#### ELT 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of electrical technology and related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### ELT 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to ELT 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### ELT 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ELT 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### EMERGENCY MEDICAL TECH BASIC

#### EMB 101 EMT - CLINICAL

0 Lecture 4 Lab 1 Credit Hours(s)

This course offers clinical skills performance in an ambulance to prepare students to provide emergency care to patients in the pre-hospital setting based on the scope of practice defined by the New York State Department of Health and U.S. Department of Transportation Emergency Medical Technician (EMT) curriculum. Emphasis will be placed on the recognition and treatment of life threatening emergencies. During these rotations the student will focus on medical and trauma patient assessment and basic psychomotor skills covered in the EMT curriculum. Students must achieve a final grade of "C" or better to progress to any course requiring this course as a prerequisite.

Prerequisite: Current NYS EMT certification

Corequisite: BIO 115

#### EMB 105 EMERGENCY MEDICAL TECHNICIAN

4 Lecture 5 Lab 6 Credit Hours(s)

This course combines didactic, psychomotor lab and clinical observation in a progressive manner to prepare students to provide emergency care to patients in the pre-hospital setting based on the scope of practice defined by the New York State Department of Health and U.S. Department of Transportation Emergency Medical Technician curriculum. Emphasis will be placed on the recognition and treatment of life threatening emergencies. Topics to include: Well Being for the EMT, Medical-Legal Issues, Airway Management, Cardiopulmonary Resuscitation, Patient Assessment, Medical Emergencies, Trauma, Infants and Children and Operations. Students must be certified as a NYS EMT to progress to EMB 101. Students who successfully complete this course will be eligible to take the New York State Department of Health EMT Certification exam.

Prerequisites: Students must reach their eighteenth birthday by the last day of the month in which they are eligible to sit for the NYS certification examination.

### ENGLISH

#### ENG 001 CRSE SPCFC STDY SK-ENG 101

1 Lecture 0 Lab 1 Credit Hours(s)

ENG 001 is a study skills course designed for those students who require support in ENG 101, Composition I. ENG 001 work includes practice in the skills necessary for reading non-fiction and for writing effective essays.

NOTE: ENG 001 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

#### ENG 002 CRSE SPCFC STDY SK-ENG 102

1 Lecture 0 Lab 1 Credit Hours(s)

ENG 002 is a study skills course designed for those students who require support in ENG 102, Composition II. ENG 002 will include practice in the skills necessary for reading short stories, poetry, and drama and for writing effective analyses of these literary works.

NOTE: ENG 002 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

#### ENG 003 COMPOSITION I MODULE

2 Lecture 0 Lab 2 Credit Hours(s)

ENG 003 is designed as a course to be paired with ENG 101. Students take both courses together in order to receive additional support and reinforce the writing skills they will learn in ENG 101. Both ENG 101 and ENG 003 concentrate primarily on expository and argumentative writing; traditional rhetorical modes; and effective composing, revising, and editing strategies.

Students in ENG 003 will focus on generating new material, gathering sources for the research paper, drafting, and revising. Students learn to formulate a thesis, use topic sentences, develop ideas, and organize supporting evidence in an essay. Grammar, punctuation, sentence structure, and clear language are emphasized. Students must pass ENG 003 in order to pass ENG 101. Prerequisites: Initial Accuplacer score of 70-79  
Corequisite: ENG 101

#### ENG 091 FUNDMENTLS OF GRAMMAR & WRITING

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed to teach the rules of punctuation, mechanics, grammar, and sentence structure. Applying these principles, students will work to develop fluency and accuracy in writing sentences, paragraphs and short essays. This course is required of some students on the basis of a placement examination and open to other students who want a basic review course.

NOTE: ENG 091 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

#### ENG 092 BASIC PATTERNS OF WRITING

3 Lecture 0 Lab 3 Credit Hours(s)

This course introduces students to college writing and reviews fundamental grammatical principles. Students begin to learn to formulate a thesis, use topic sentences, develop ideas, and organize supporting evidence in an essay. Grammar, punctuation, sentence structure, and clear language are heavily stressed. This course is required of some students on the basis of a placement examination and open to other students who want a review course. This course is also a requirement for those students receiving a grade of less than A in English 091, but is not required for students receiving a grade of A in ENG 091.

NOTE: ENG 092 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

#### ENG 095 ENGLISH AS A SECOND LANGUAGE I

3 Lecture 0 Lab 3 Credit Hours(s)

A course for students whose first language is not English, who have at least an elementary spoken and written knowledge of English, and who need further work on speaking, understanding, reading and writing standard American English. Class sessions will be intensive practice in practical applications of the rules of grammar and in vocabulary building and in basic composition. Required of some students on the basis of placement examination and open only to them.

Note: The course is a prerequisite for ENG 096 and 101 for those students referred by the English faculty.

NOTE: ENG 095 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

#### ENG 096 ENGLISH AS SECOND LANGUAGE II

3 Lecture 0 Lab 3 Credit Hours(s)

The second semester of a two-semester sequence designed for students whose first language is not English and who require further work on writing and reading standard American English in order to be prepared for entrance into the regular composition sequence. Class sessions will concentrate on advanced grammar, reading comprehension, and basic composition, with supplemental work on speaking and listening skills. Completion of ENG 096 with a grade of C or better will allow students to enter ENG 101.

NOTE: ENG 096 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

Prerequisite: ENG 095 with a grade of C, or departmental approval based on placement test score.

#### ENG 101 COMPOSITION I

3 Lecture 0 Lab 3 Credit Hours(s)

English 101 addresses the major principles of college writing, which are meant to serve students in all the disciplines across the curriculum. The course concentrates primarily on expository and argumentative writing; traditional rhetorical modes; and effective composing, revising and editing strategies. English 101 covers MLA conventions, and a research paper is required. Critical thinking and reading skills are also stressed.

Prerequisite: Satisfactory scores in English proficiency tests, completion of ENG 091 or 095 with a grade of A, or completion of ENG 092 or 096 with a grade of C or better.

#### ENG 102 COMPOSITION II

3 Lecture 0 Lab 3 Credit Hours(s)

A continuation of ENG 101, with further study of the resources of the language through a critical analysis of imaginative forms of writing. Emphasis will be placed upon well organized written composition, factually supported conclusions and awareness of language variety. Effectiveness of expression and validity of judgment in the student's writing are stressed. Genre reading will include fiction, poetry and drama.

Prerequisite: ENG 101 with a grade of C or better.



ENG 201 ENG LIT:PRE-RENAIS/18TH CENTRY

3 Lecture 0 Lab 3 Credit Hours(s)

A study of significant selections from the Middle Ages through the Age of Reason. The course includes poetry, drama, the essay and the novel. Such literary figures, as Chaucer, Milton, Donne and Pope will be studied.

Prerequisite: ENG 102.

ENG 202 ENG LIT: ROMNTC POET/MDRN ERA

3 Lecture 0 Lab 3 Credit Hours(s)

ENG 202 is a survey course with selections from the romantic period to the present. Such figures as Wordsworth, Keats, Browning, Yeats and Eliot will be studied.

Prerequisite: ENG 102.

ENG 203 LIT OF US:COLONIAL/CIVIL WAR

3 Lecture 0 Lab 3 Credit Hours(s)

A study of significant selections from the Colonial Period to the Civil War, including poetry, essays, short stories and novels with emphasis on Hawthorne, Thoreau, Melville, Poe and Whitman.

Prerequisite: ENG 102.

ENG 204 LIT OF US:CIVIL WAR TO WW II

3 Lecture 0 Lab 3 Credit Hours(s)

A survey course beginning with a study of writers such as Twain and James as representatives of the Realistic Period, and extending to writers such as Hemingway, Faulkner and Eliot as representatives of the Modern Period.

Prerequisite: ENG 102.

ENG 205 18TH AND 19TH CENTURY NOVEL

3 Lecture 0 Lab 3 Credit Hours(s)

The study and interpretation of representative novels in English and in translation through the nineteenth century.

Prerequisite: ENG 102.

ENG 206 20TH AND 21ST CENTURY NOVEL

3 Lecture 0 Lab 3 Credit Hours(s)

Twentieth and twenty-first century novels in English and in translation.

Prerequisite: ENG 102.

ENG 207 ERLY DRMTC LIT:CLASS/ROM

3 Lecture 0 Lab 3 Credit Hours(s)

A study of significant selections from the literature of the theatre in English and translation, this course acknowledges the debt of classical theatre while it emphasizes British drama, especially comedy, of the early modern period through the nineteenth century.

Prerequisite: ENG 102.

ENG 208 MDRN DRMTC LIT:REAL/ABSRD

3 Lecture 0 Lab 3 Credit Hours(s)

A study of significant selections from the literature of the theatre in English and in translation from Ibsen to the present. Authors may include Chekhov, Shaw, Strindberg, Brecht, Miller, O'Neill, Beckett, O'Casey, Pinter and Stoppard.

Prerequisite: ENG 102.

ENG 209 DIRECTED WRITING OF FICTION

3 Lecture 0 Lab 3 Credit Hours(s)

A course in which the student practices various forms of fiction writing. Direction in the assembling of fictional material and in the reading of fiction to gain an understanding of the creative process as it applies to writing.

Pre- or Co-requisite: ENG 102 or permission of department.

ENG 210 DIRECTED WRITING OF POETRY

3 Lecture 0 Lab 3 Credit Hours(s)

A course in which the student practices various forms of poetic composition. Direction in the assembling of poetic material and in the ordering of that material to achieve appropriate sounds and sense.

Pre- or Co-requisite: ENG 102 or permission of department.

ENG 211 NEWSWRITNG EDITING & PUBLICATN

3 Lecture 0 Lab 3 Credit Hours(s)

A course in which the student practices reporting and writing news for print journalism. Direction in observing events, interviewing people, researching information and writing straight-news and feature articles. Does not fulfill the advanced English course requirement in the liberal-arts program.

Prerequisites: ENG 101 and 102, or permission of the department.

ENG 212 GREEK/ROMAN LIT TRANSLATN

3 Lecture 0 Lab 3 Credit Hours(s)

A study of significant selections from the works of such authors as Homer, Sappho, Theocritus, Aeschylus, Sophocles, Plato, Aristotle, Lucretius, Catullus, Vergil, Horace, Juvenal, Plautus and Seneca. The literary forms read include poetry, drama, satire, literary criticism and fiction.

Prerequisite: ENG 102.

ENG 213 ASIAN LIT IN TRANSLATION

3 Lecture 0 Lab 3 Credit Hours(s)

A study of selected literary works from Japanese, Chinese and Indian literature. Emphasis will be on modern literature. The literary forms read will be novels, short stories, drama and poetry in English.

Prerequisite: ENG 102.

### ENG 214 DIRECTED WRITING CREATIVE NON-FICTION

3 Lecture 0 Lab 3 Credit Hours(s)

In creative non-fiction, the details of the content are true and accurate while the strategies of the form and style use the full range available to fiction, poetry and drama. In this course, the student will practice various forms of creative non-fiction, an inclusive term for writing of memoir; lyric and personal essay; plotted narrative; biography; cultural criticism and travel, science and nature writing. Students will be directed in their assembling of material-gathering notes, conducting interviews, research and in the reading of creative non-fiction (sometimes termed literary journalism, literary non-fiction, the literature of reality and the literature of fact) to gain an understanding of the creative process as it applies to writing.

Pre- or Co-requisite: ENG 102 or permission of department.

### ENG 215 MODERN POETRY

3 Lecture 0 Lab 3 Credit Hours(s)

A study of selected modern poets chosen to illustrate the significance of various influences upon the contemporary poetic scene. A consideration of the techniques available to the modern poet and of the relation of the poem's meaning to its sound.

Prerequisite: ENG 102.

### ENG 216 THE SHORT STORY

3 Lecture 0 Lab 3 Credit Hours(s)

This course is a study of the development of the short story from its beginnings in the nineteenth century to the present day. The works of a number of authors are studied. Emphasis is placed on how contributions by these significant individual authors changed the focus and altered the purpose of the short story during its brief history.

Prerequisite: ENG 102.

### ENG 218 ADVANCED COMPOSITION/PEER TUTORING WRITING

3 Lecture 2 Lab 4 Credit Hours(s)

This course is designed for capable student writers who wish to improve their writing skills in advanced composition and to learn approaches to tutoring in order to assist other students who have writing concerns. In this course, students will study different approaches to composition and the various types of writing in the disciplines. They will write essays, journals, case studies and critiques of other students' writing. In evaluating their tutoring, they will use role playing and peer review. The instructor will supervise tutorial work regularly. Students will be required to work two hours per week in the Writing Center.

Prerequisites: Completion of the composition series, ENG 101 and 102, with a grade average of B or better, and permission of instructor.

### ENG 221 RUSSIAN LITERATURE IN TRANSLATION

3 Lecture 0 Lab 3 Credit Hours(s)

A course exploring the literature of Russia, using major authors to reveal the intellectual, social and philosophical forces that helped mold 19th Century Czarist Russia, influenced the post-Czarist U. S. S. R. and modern Russia. Prerequisite: ENG 102.

### ENG 223 WOMEN IN AMERICAN LITERATURE

3 Lecture 0 Lab 3 Credit Hours(s)

This course explores conscious and unconscious stereotypes of women in literature by men and women. Emphasis is placed on critical analysis of selected works from traditional and feminist points of view.

Prerequisite: ENG 102.

### ENG 224 AFRICAN-AMERICAN & BLACK LITERATURE

3 Lecture 0 Lab 3 Credit Hours(s)

A study of selected works by significant African-American writers. The forms studied include the novel, the short story, drama, the autobiography and poetry.

Prerequisite: ENG 102.

### ENG 225 ISSUES/IDEAS IN CARIBBEAN LITERATURE

3 Lecture 0 Lab 3 Credit Hours(s)

This course introduces students to issues and ideas in Caribbean literature. Poetry, prose, short stories, plays and criticisms from English, Dutch, French and Spanish speaking islands will be discussed. Students will be introduced to ideas in magical realism, creolization, pastoralism and assimilation as they appear in the stories of the people. By using structural, feminist, reader response and new historicism analysis, students will discuss the presentation of the African diaspora.

Prerequisite: ENG 102.

### ENG 226 POPULAR CULTURE

3 Lecture 0 Lab 3 Credit Hours(s)

This course critically examines selected examples of popular culture and popular art including fiction, non-fiction, music and film. Emphasis is placed on how print and electronic media transmit and circulate popular culture.

Prerequisite: ENG 102.

### ENG 227 FILMS AND LITERATURE

3 Lecture 0 Lab 3 Credit Hours(s)

A course in which the student examines the relationship between films and literature. Direction in the reading of literary works, the viewing of films based on these works, and the comparison and contrast of the two.

Prerequisite: ENG 102.

### ENG 229 LITERATURE OF THE HUDSON RIVER VALLEY

3 Lecture 0 Lab 3 Credit Hours(s)

The Hudson River Valley has produced a rich body of literature which includes poetry, nonfiction, short fiction and novels. Students will read selected works from this literature, including fiction by Cooper, Irving, T.C. Boyle, William Kennedy and non-fiction works by landscape painters, landscape artists, naturalists and travelers in the region.

Prerequisite: ENG 102.

#### ENG 230 SHAKESPEARE

3 Lecture 0 Lab 3 Credit Hours(s)

A study of Shakespeare's drama and poetry. Readings include tragedies, histories, comedies, romances and sonnets. Shakespeare's work is examined both in relation to Elizabethan/Jacobean culture and history and as it has been received and understood through the present.

Prerequisite: ENG 102.

#### ENG 231 LIT OF CREATIVE NON-FICTION

3 Lecture 0 Lab 3 Credit Hours(s)

The literature of creative non-fiction is a course in which the student reads and evaluates a wide variety of writing forms and styles in the literature of fact. Creative non-fiction includes selections of literary diaries and journals, literary memoirs, personal essays, literary journalism, nature writing, literary travel writing, science essays and creative cultural criticism.

Prerequisite: ENG 102

#### ENG 232 GRAPHIC NARRATIVE

3 Lecture 0 Lab 3 Credit Hours(s)

This course explores the development, theory, and achievement of the medium of graphic narrative, in which narrative arises from the interplay of sequential images and words. Topics studied include the growth of the medium (from the comics tradition to book-length graphic novels, graphic memoirs, graphic reportage, and other forms), the nature and possibilities of its formal conventions, connections to the novel and to film, and emerging directions (including the impact of the Internet and other new technologies). The formal elements of several graphic narratives, as well as the social and historical issues they address, will be studied. 3 Lecture, 0 Lab, 3 Credit Hours. Prerequisite: ENG 102.

#### ENG 263 CONTEMPORARY LITERATURE OF US

3 Lecture 0 Lab 3 Credit Hours(s)

A study of American novels, poetry and short stories written from 1945 to present, chosen for both their literary excellence and their multi-cultural perspectives, including such writers as Morrison, Mason, Silko, Roth, Cheever, Plath, O'Connor, Bellow, Rivera, Sonchez, Tan and Hong-Kingston.

Prerequisite: ENG 102.

#### ENG 264 CONTEMPORARY INTERNATIONAL LIT

3 Lecture 0 Lab 3 Credit Hours(s)

Designed for Honors students, this course includes the works of significant contemporary international authors from countries such as those in Africa, Eastern Europe, the Middle East, the Far East and Latin America. The genres studied may include poetry, novel, short story, autobiography, memoirs and essays. Writing, discussion and independent research are emphasized.

Prerequisites: ENG 101 and 102 or permission of the department.

#### ENG 267 SELECTED GLOBAL LITERARY STUDY

3 Lecture 0 Lab 3 Credit Hours(s)

This course deals with a selected literary question chosen for its significance, its potential for contributing to the intellectual development and literary understanding of the participants, and with geographic and/or cultural areas defined by the College as meeting its definition of 'Global Perspective'.

Prerequisite: ENG 102.

#### ENG 268 LITERARY STUDIES I

3 Lecture 0 Lab 3 Credit Hours(s)

This course deals with a selected literary question chosen for its significance and its potential for contributing to the intellectual development and literary understanding of the participants. The topic will differ from the topic for ENG 269. Prerequisite: ENG102

#### ENG 269 LITERARY STUDIES II

3 Lecture 0 Lab 3 Credit Hours(s)

This course deals with a selected literary question chosen for its significance and its potential for contributing to the intellectual development and literary understanding of the participants. The topic will differ from the topic for ENG 268. Prerequisites: ENG102.

#### ENG 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, travel, work experience or other activities that advance the student's knowledge and competence in writing, literature, or related subjects. The student's time commitment to the project will be approximately 35-50 hours.

#### ENG 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to ENG 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### ENG 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ENG 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### ENG 280 OVERSEAS STUDY: CARIBBEAN LIT

3 Lecture 0 Lab 3 Credit Hours(s)

This is a study-abroad course that takes students to a Caribbean island for ten days to study the culture. This includes a look at the religion, education, traditions, customs, politics, arts, entertainment and celebration. Students will read and critically analyze a novel, a play and poetry from this island and write a major paper synthesizing this material.

Prerequisites: ENG 101 and ENG 102.

## ENGINEERING

### ENR 100 ENGINEERING AND TECH INTRO SEM

1 Lecture 0 Lab 1 Credit Hours(s)

Designed for students in the Engineering Science (ENR) curriculum, this course will focus on personal development and effective strategies for successful completion of the AS degree. Personal educational goals and curriculum management, transfer and employment opportunities, technical reading and writing, math and computer skills, communication skills and using college resources will be among the topics examined in the seminar.

### ENR 101 INTRODUCTION TO ENGINEERING

1 Lecture 2 Lab 2 Credit Hours(s)

An introduction to the field of engineering. Topics include exploring the various engineering disciplines, engineering analysis and design methods, engineering economics and statistics, engineering ethics, the impact of engineering on society, life long learning, and using engineering tools in practice. These concepts are emphasized and applied in hands on problem solving situations that require teamwork, research and documentation. Students will create a design for manufacturing prototype and deliver their design solution results through the engineering reporting process.

Prerequisite MAT 184

### ENR 102 COMPUTER PROGRAMMING FOR ENGRS

3 Lecture 1 Lab 3 Credit Hours(s)

A course in computer programming using a high level programming language as a tool to solve engineering problems. Topics include programming structure, decisions, repetition, arrays, functions, data files, addresses and pointers and object oriented design. Prerequisite: MAT185 or MAT221 or MAT222 or MAT223 or MAT224.

### ENR 106 STATISTICAL PROCESS CONTROL

3 Lecture 0 Lab 3 Credit Hours(s)

This course introduces the student to basic statistical tools for quality control and improvement. The course covers Statistical Process Control (SPC) in depth and contrasts SPC with Acceptance Sampling. The course also includes a discussion of process capability and an introduction to quality improvement through the statistical design of experiments. The current state of statistical software is established through demonstrations. This course may be offered off-campus and may be cross-registered with regional community colleges.

Prerequisite: MAT 184 with a grade of C or better.

### ENR 201 INTRO ELEC CIRCUITS & NETWORKS

3 Lecture 2 Lab 4 Credit Hours(s)

This course provides the student with the basic tools needed to analyze the circuits and systems he/she will encounter in electrical engineering. Topics include basic circuit concepts, Kirchhoff's Laws, basic network topology, mesh analysis, nodal analysis, superposition, Thevenin's Theorem, Norton's Theorem, maximum power transfer, initial conditions, the classical solutions of first and second order differential equations, sinusoidal steady state analysis, Phasor concepts, impedance and admittance, effective values, phasor diagrams, AC power relationships, power factor, apparent and complex power, pf correction, and 3-phase circuits. Laboratory assignments will require students to analyze data using computer programming skills, use of the software package Multisim for circuit analysis, and practice writing both formal and informal reports.

Prerequisite: Proficiency with computer software including word processing and spreadsheets.

Corequisite: MAT 223 and PHY152.

### ENR 204 MECHANICS OF MATERIALS

4 Lecture 0 Lab 4 Credit Hours(s)

A first engineering-level course in the mechanics of materials. The major emphasis is on how materials react in the elastic range of stress before permanent deformation takes place. Computer analysis is included where appropriate. Topics include the basic concepts of stress and strain, properties of various materials, working stress, factors of safety; torsional and flexural stresses; analysis of beams and columns, combined stresses, and welded, bolted and riveted connections. Both English and SI units are used.

Prerequisite: ENR 208

### ENR 207 ENGINEERING MATERIALS SCIENCE

3 Lecture 3 Lab 4 Credit Hours(s)

This course is a study of the fundamental characteristics of solid materials and their applications in engineering. Included are crystalline and noncrystalline materials; metals, ceramics, polymers and composites. The course

analyzes the mechanical, thermal, optical, electrical, magnetic and surface properties of various materials. A design project is required.

Note: Students must register for both a lecture and a lab.  
Prerequisites: CHE 121 and PHY 152 or permission of the instructor.

#### ENR 208 ENGINEERING STATICS

3 Lecture 0 Lab 3 Credit Hours(s)

A study of static force systems. Vectorial and conventional techniques are used in problem solving. Topics included are: properties of force systems, free-body analysis, particles, rigid bodies, trusses, frames and machines, internal forces in structural members, properties of area and mass, and friction.

Prerequisites: PHY 151 and MAT 222.

#### ENR 209 ENGINEERING DYNAMICS

3 Lecture 0 Lab 3 Credit Hours(s)

A study of dynamic force systems. Vectorial and conventional techniques are used in problem solving. Topics included are: properties of force systems, free-body analysis, particles, rigid bodies, properties of area and mass, kinematics, kinetics, energy methods and momentum methods.

Prerequisite: ENR 208 or departmental permission.

#### ENR 215 SURVEYING I

2 Lecture 3 Lab 3 Credit Hours(s)

This course is an introduction to the field of surveying. Students will learn what surveying encompasses and what further course of study is required to become licensed as a Professional Land Surveyor. Students will learn how to use modern land surveying equipment such as automatic levels, total station theodolites, and GPS (Global Positioning Systems). Students will learn how the use of field equipment information is integrated into the production of topographic maps. During this entire process, students will be introduced to the standards of map making and the fundamentals of land surveying.

Prerequisite: MAT 131 with a grade C or better, or departmental permission. Students must have the ability to use a compass, protractor and engineer's scale.

#### ENR 220 DIGITAL CIRCUIT DESIGN

2 Lecture 2 Lab 3 Credit Hours(s)

This course focuses on the design of digital electronic circuits used in both computing and control applications. Topics include Boolean algebra and reduction, Karnaugh mapping, design using FPGA CPLDs, arithmetic circuits including the ALU, state machine design, multiplexing, memory and addressing, and the processor clock cycle.  
Prerequisites: ELT115 with a grade of C or better, or departmental permission.

#### ENR 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of engineering or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### ENR 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to ENR 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### ENR 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ENR 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### ENGINEERING TECHNOLOGY

#### ENT 131 TECHNICAL DRAWING

1 Lecture 1 Lab 1 Credit Hours(s)

This course provides an introduction to the field of engineering drawing and sketching. Topics include 3-dimensional sketching, orthographic projection, sectioning, isometric presentation, dimensioning and labeling. The student will be introduced to specifications, schematic drawings and the machine shop processes. Assignments will be completed using hand sketching and Computer Assisted Drafting.

#### ENT 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of engineering technologies or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### ENT 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to ENT 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### ENT 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ENT 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## EXERCISE, SCI., WELLNESS

### ESW 100 ESW INTRODUCTORY SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

This course introduces students to the field of Exercise Science and Wellness and assists them in making decisions leading to a successful career in the field of Exercise Science and Wellness. It provides an overview of the education and training needed, preparation for certification examinations, career opportunities and possible transfer options.

### ESW 101 INTRO TO EXERCISE PHYSIOLOGY

2 Lecture 0 Lab 2 Credit Hours(s)

This course is part of the A.S. degree in Exercise Science and Wellness. It will examine how the body functions under conditions of exercise stress. Students will study the practical implications of muscle function, cardio-respiratory function, training techniques and the effects of the environment.

### ESW 201 EXERCISE TESTING

2 Lecture 3 Lab 3 Credit Hours(s)

This course is designed for the A.S. degree in Exercise Science and Wellness. The student will learn to assess cardiorespiratory endurance, body fat, muscular strength, muscular endurance, flexibility, pulmonary function, and blood pressure, and to evaluate the results of such tests. Students will be instructed on how to perform a complete health history on a client, the legal issues they would be presented with, and how to interpret these results to the client.

Prerequisite: ESW 101

### ESW 202 EXERCISE PRESCRIPTION

2 Lecture 3 Lab 3 Credit Hours(s)

This course is designed for the A.S. degree in Exercise Science and Wellness. The student will learn the effects of exercise on special populations and to modify exercise based on age and medical conditions. It will also focus on training the student to utilize many pieces of equipment and how to keep the client motivated. The special populations and conditions to be discussed will include clients with coronary heart disease, diabetes, hypertension, asthma, obesity, pregnancy, arthritis, and low back pain. Special populations to be studied will include seniors and children. An additional lab hour will be spent on hands-on experience in our fitness center. Students will apply all clinical experiences to the clients in

the center. The course may include placement in a local fitness center.

Prerequisite: ESW201

### ESW 203 PERSONAL TRAINING CERTIFICATN

2 Lecture 2 Lab 3 Credit Hours(s)

This course teaches concepts of personal training as laid out by the National Council on Strength and Fitness. The course will have a close examination of functional anatomy, biomechanics, muscle physiology, nutrition, body composition and overall physical fitness and health. The final written examination at the end of this course will be the certification exam for personal training offered by the National Council on Strength and Fitness.

### ESW 204 SPORTS NUTRITION SPEC CERTIF

3 Lecture 0 Lab 3 Credit Hours(s)

The NCSF Sports Nutrition Specialist Course builds upon foundational knowledge related to nutrition by exploring the intricacies of improving sports performance through adjustments to dietary practices. The course will provide the scientific basis for sports nutrition and covers the principles, background and rationale for current sports nutrition guidelines.

Pre-requisite: BIO 122 or permission of the HPEAD department.

### ESW 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of exercise science and wellness and related areas. The student's time commitment to the project will be approximately 35-50 hours.

### ESW 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to ESW 271 except that the student's time commitment to the project will be approximately 70-90 hours.

### ESW 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ESW 271 except the student's time commitment to the project will be approximately 105-135 hours.

## FIRE & OCCUPATIONAL SAFETY

### FIR 100 FIRE SCIENCE INTRO SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

A seminar designed to provide students with the opportunity to learn and practice strategies that will enhance their ability to successfully complete their educational program in the field of Fire Science. Emphasis will be on identification and clarification of personal goals, career planning, curriculum planning and study techniques. It will also explore effective program management and maximum utilization of college resources as well as career opportunities in fire and safety.

#### FIR 102 FUNDAMENTALS-FIRE PROTECTION

3 Lecture 0 Lab 3 Credit Hours(s)

This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems and introduction to fire strategy and tactics; and life safety initiatives.

#### FIR 104 FUNDAMENTALS-FIRE PREVENTION

3 Lecture 0 Lab 3 Credit Hours(s)

This course provides fundamental knowledge relating to the field of fire prevention. Topics include: history and philosophy of fire prevention, organization and operation of a fire prevention bureau, use and application of codes and standards: plans review, fire inspections, fire and life-safety education, and fire investigation.

#### FIR 110 FIRE BEHAVIOR AND COMBUSTION

3 Lecture 0 Lab 3 Credit Hours(s)

This course is a study of the behavior and dynamics of fire. Additional topics to include theories and fundamentals of pyrolysis, heat transfer, energy absorption and fire suppression.

#### FIR 112 PRIN. EMER.SERV. SAF. & SRVIVL

3 Lecture 0 Lab 3 Credit Hours(s)

This course introduces the basic principles and history related to the national firefighter life safety initiatives, focusing on the need for cultural and behavior change throughout the emergency services.

#### FIR 114 BLDG CONSTRUCT-FIRE PROTECTION

3 Lecture 0 Lab 3 Credit Hours(s)

This course studies the components of building construction, design, the function and testing of building materials and building code compliance in designing and maintaining life safety.

Prerequisites: FIR 102 and FIR 104.

#### FIR 204 FIRE PROTECTION SYSTEMS

3 Lecture 0 Lab 3 Credit Hours(s)

An introduction to the features of design and operation of fire detection and alarm systems, heat and smoke control systems, special protection and sprinkler systems, water supply for fire protection and portable fire extinguishers.  
Prerequisites: FIR 102 and FIR 110.

#### FIR 212 HYDRAULICS AND WATER SUPPLY

3 Lecture 0 Lab 3 Credit Hours(s)

This course provides the student with a foundation of theoretical knowledge of water at rest and in motion. Principles of the use of water in fire protection and hydraulic principles to analyze to solve water supply problems.

Prerequisites: PHY 121 and FIR 102.

#### FIR 214 LEGAL ASPECTS IN FIRE & SAFETY

3 Lecture 0 Lab 3 Credit Hours(s)

The course will address Federal, State and local laws that regulate emergency services and include a review of national standards, regulations, and consensus standards.

Prerequisite: FIR 102

#### FIR 222 FIRE & SAFETY ADMINISTRATION

3 Lecture 0 Lab 3 Credit Hours(s)

This course introduces the student to the organization and management of a fire and emergency services department and the relationship of government agencies to the fire service. Emphasis is placed on fire and emergency service, ethics, and leadership from the perspective of the company officer.

Prerequisite: FIR 102

#### FIR 224 STRATEGY AND TACTICS

3 Lecture 0 Lab 3 Credit Hours(s)

This course provides the fundamentals of fire ground control through utilization of personnel, equipment, and extinguishing agents.

Prerequisites: FIR 112 and FIR 114.

#### FIR 226 FIRE INVESTIGATION

3 Lecture 0 Lab 3 Credit Hours(s)

This course is intended to provide the student with the fundamentals and technical knowledge needed for proper fire scene interpretations, including recognizing and conducting origin and cause, preservation of evidence and documentation, scene security motives of the fire setter, and types of fire causes.

Prerequisite: FIR 110

#### FIR 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research,

community service, work experience or other activities that advance the student's knowledge and competence in the field of fire science or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### FIR 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to FIR 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### FIR 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to FIR 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### FRENCH

#### FRE 101 ELEMENTARY FRENCH I

3 Lecture 1 Lab 3 Credit Hours(s)

Study of the sounds of French. Imitation and adaptation of structural models to make simple statements. Development of four skills: listening, speaking, writing and reading. Grammar is studied in the context of structural patterns; grammatical explanations are kept to a minimum. The emphasis of the course is on understanding French when it is spoken and speaking it in realistic everyday situations. Open only to students who have not studied French. Native speakers should contact the department to determine their level as well as the courses open to them for credit.

Note: Students must register for both a lecture and a lab.

#### FRE 102 ELEMENTARY FRENCH II

3 Lecture 1 Lab 3 Credit Hours(s)

Direct continuation of FRE 101. Writing skills developed through exercises on a given topic. Grammatical explanations continue to be kept to a minimum. Basic patterns of communication and overall structures are stressed. The emphasis of the course remains on understanding and speaking French in realistic everyday situations.

Note: Anyone unsure of his or her level should contact the department. Native speakers should also contact the department to determine their level as well as the courses open to them for credit. Students must register for both a lecture and a lab.

Prerequisite: FRE 101 or permission of department.

#### FRE 199 FRENCH REVIEW

3 Lecture 1 Lab 3 Credit Hours(s)

A course designed for students with one or more years of high school French who do not feel ready for FRE

201. The course is a general review of basic French grammar and patterns of communication. The emphasis is on understanding and speaking French. Writing is used to consolidate learning. The content of FRE 101 and FRE 102 is covered in one semester.

Note: Native speakers should contact the department to determine their level as well as the courses open to them for credit. Students must register for both a lecture and a lab.

Prerequisite: Permission of department.

#### FRE 201 INTERMEDIATE FRENCH I

3 Lecture 0 Lab 3 Credit Hours(s)

Direct continuation of FRE 102 and FRE 199. Consolidation of basic skills: understanding, reading, speaking and writing. Emphasis on accuracy in speaking and writing as well as understanding complex French. Emphasis is also placed on content of speaking or writing (critical analysis of foreign culture).

Note: Native speakers should contact the department to determine their level as well as the courses open to them for credit.

Prerequisite: FRE 102 or 199 or permission of department.

#### FRE 202 INTERMEDIATE FRENCH II

3 Lecture 0 Lab 3 Credit Hours(s)

Direct continuation of FRE 201. Consolidation of basic skills: understanding, reading, speaking and writing. Emphasis on accuracy in speaking and writing as well as understanding complex French. Emphasis also on content of speaking or writing (critical analysis of foreign culture).

Note: Native speakers should contact the department to determine their level as well as the courses open to them for credit.

Prerequisite: FRE 201 or permission of department.

#### FRE 204 FRENCH CULTURE AND LANGUAGE I

3 Lecture 0 Lab 3 Credit Hours(s)

An intensive course, three hours per day, five days per week, to be offered in France or in a French-speaking country. The duration of the course is approximately six weeks. It includes guided excursions to areas of cultural interest. Students are housed with local families whenever possible. Participation subject to approval of the department.

#### FRE 205 FRENCH CULTURE AND LANGUAGE II

3 Lecture 0 Lab 3 Credit Hours(s)

An intensive course, three hours per day, five days per week, to be offered in France or in a French-speaking country. The duration of the course is approximately six weeks. It includes guided excursions to areas of cultural interest. Students are housed with local families whenever possible. Participation subject to approval of the department.



### FRE 208 CLTRL APP-FOREIGN LANG SKILLS

3 Lecture 0 Lab 3 Credit Hours(s)

A cultural project which offers students the opportunity to learn about language in a non-traditional set up, to be creative and innovative, to relate language to culture, and to test their skills in a communicative manner while rendering a service to the community. Since the course offering changes every year, students should inquire from the department as to what the focus is for that specific semester. Open to students of Spanish or Italian or French. Students to select one language.

Prerequisite: FRE 102 or 199 or permission of the instructor.

### FRE 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, work experience, or other activities that advance the student's knowledge and competence in the French language. The student's time commitment to the project will be approximately 35-50 hours.

### FRE 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to FRE 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### FRE 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to FRE 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### FRE 301 ADVANCED FRENCH I

3 Lecture 0 Lab 3 Credit Hours(s)

Advanced French conversation and composition. Materials selected from current French newspapers and magazines as well as French and Francophone literature. Review of advanced French grammar.

Prerequisite: Permission of department.

### FRE 302 ADVANCED FRENCH II

3 Lecture 0 Lab 3 Credit Hours(s)

Continuation of FRE 301. Advanced French conversation and composition. Materials selected from current French newspapers and magazines as well as French and Francophone literature. Review of advanced French grammar.

Prerequisite: Permission of department.

## GEOGRAPHY

### GEO 101 GEOGRPHY EUROPE/MIDEAST/AFRICA

3 Lecture 0 Lab 3 Credit Hours(s)

A survey of the human, physical, and cultural factors which influence population, distribution, and economic and political activities in Europe, Russia, Sub-Saharan Africa, North Africa, and the Middle East. Special emphasis is placed on the environmental, demographic, and economic impact of globalization and climate change.

### GEO 102 GEOG ASIA/PACIFIC/WESTERN HEM

3 Lecture 0 Lab 3 Credit Hours(s)

A regional survey of North America, the Pacific Rim, Middle America, South America, South Asia, China and Southeast Asia. This course considers the cultural, physical, political, economic, urban, historical and human geography of these regions.

### GEO 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of geography or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### GEO 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to GEO 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### GEO 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to GEO 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## GERMAN

### GER 101 ELEMENTARY GERMAN I

3 Lecture 1 Lab 3 Credit Hours(s)

Presentation of basic constructions and sentence patterns. Stress is on spoken German and imitation of overall structures in simple reading exercises. Grammar studied in the context of structural patterns. Writing exercises based on reading material. Supervised and independent language laboratory practice of speech patterns to provide a strong basis for good command of the

language. Open only to students who have not studied German or who have permission of the department.

#### GER 102 ELEMENTARY GERMAN II

3 Lecture 1 Lab 3 Credit Hours(s)

Continuation of GER 101. Intensive practice to develop skill in writing, reading, listening and speaking about realistic everyday situations. Original composition practice on given topics. Supervised and independent language laboratory practice.

Prerequisite: GER 101 or permission of the department.

#### GER 201 INTERMEDIATE GERMAN I

3 Lecture 0 Lab 3 Credit Hours(s)

Study of more complicated structure based on selected reading from representative authors, modern and classical. Simple stories used as a basis for the study of German culture and conversational practice. Language laboratory work. Special arrangements made for students interested in reading scientific German.

Prerequisite: GER 102 or permission of the department.

#### GER 202 INTERMEDIATE GERMAN II

3 Lecture 0 Lab 3 Credit Hours(s)

Continuation of GER 201. Language laboratory work.

Prerequisite: GER 201 or permission of the department.

#### GER 271 2

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, work experience, or other activities that advance the student's knowledge and competence in the German language. The student's time commitment to the project will be approximately 35-50 hours.

#### GER 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to GER 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### GER 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to GER 271, except that the student's time commitment to the project will be approximately 105-135 hours.

#### GER 301 ADVANCED GERMAN I

3 Lecture 0 Lab 3 Credit Hours(s)

A study of selected classics and modern literary works. Advanced syntax, intensive practice in writing acceptable

German. Creative expression in speaking and writing. Conversation practice.

Prerequisite: GER 202 or permission of the department.

#### GER 302 ADVANCED GERMAN II

3 Lecture 0 Lab 3 Credit Hours(s)

Continuation of GER 301. Advanced syntax and conversation. Language laboratory work.

Prerequisite: GER 301 or permission of the department.

### GEOLOGY

#### GLG 121 PHYSICAL GEOLOGY

3 Lecture 2 Lab 4 Credit Hours(s)

An introduction to the fundamental principles that shape planet earth. Emphasis is placed on understanding the processes of weathering and erosion, the origin of earthquakes, the formation of mountains and volcanoes and the drifting of continents. Laboratory study of common minerals and rocks and features of topographic and geologic maps. Field trips to significant geological localities are an integral part of the laboratory program.

#### GLG 124 THE EARTH THROUGH TIME

3 Lecture 2 Lab 4 Credit Hours(s)

The study of the origin and evolution of planet earth and its life through geological time. Special emphasis is placed on the development of North America, employing the newest concepts of plate tectonics and sea floor spreading. Laboratory study of fossils, geologic maps and structures. Field trips to significant geological localities are an integral part of the laboratory program.

#### GLG 126 ENVIRONMENTAL GEOLOGY

3 Lecture 2 Lab 4 Credit Hours(s)

The study of local, regional and global perspectives of environmental geological issues while focusing on earth materials and processes. Emphasis will be placed on both hazardous natural earth processes and man related environmental problems and solutions. Topics such as earthquakes, volcanic activity, flooding, landslides, groundwater pollution, soil pollution and mineral resource issues will be investigated. Laboratory and field labs work will be supplemented by field trips.

#### GLG 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of geology or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### GLG 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to GLG 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### GLG 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to GLG 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### GLG 291 FIELD GEOLOGY STUDY I

0 Lecture 3 Lab 1 Credit Hours(s)

An opportunity to learn about geological principles and processes through direct field study in a specific area or region. The student would be expected to do assigned readings in preparation for the trip and to attend one or more study sessions prior to their participation in the trip. At the end of the field study, the student will prepare and submit a field trip report. Students will be expected to bear certain costs for camping and travel. Each field study will have a specific title and description, depending on the area or region to be visited. The student's time commitment to the course will be approximately 35-50 hours.

Prerequisite: GLG 121 or PHS 102 or permission of instructor.

### GLG 292 FIELD GEOLOGY STUDY II

1 Lecture 3 Lab 2 Credit Hours(s)

Similar to GLG 291, except that the student's time commitment to the course will be approximately 70-90 hours.

Prerequisite: GLG 121 or PHS 102 or permission of instructor.

### GLG 293 FIELD GEOLOGY STUDY III

2 Lecture 3 Lab 3 Credit Hours(s)

Similar to GLG 291, except that the student's time commitment to the course will be approximately 105-135 hours.

Prerequisite: GLG 121 or PHS 102 or permission of instructor.

### GLG 294 FIELD GEOLOGY STUDY IV

2 Lecture 6 Lab 4 Credit Hours(s)

Similar to GLG 291, except that the student's time commitment to the course will be approximately 120 - 140 hours.

Prerequisite: GLG 121 or PHS 102 or permission of instructor.

## GOVERNMENT

### GOV 121 AMERICAN NATIONAL EXPERIENCE

3 Lecture 0 Lab 3 Credit Hours(s)

A course dealing with the philosophy, structure, functions and processes of our national government. Topics include the methods of political and historical analysis, the machinery of government, the political process and political behavior. Historical events and personalities in American politics will be used to illustrate the issues and processes of American government. The course will fulfill the History, Government, Economics requirement for Liberal Arts and Humanities majors and may be designated as either a GOV or a HIS course depending on the needs of the student for transfer.

### GOV 151 INTRODUCTION TO LAW

3 Lecture 0 Lab 3 Credit Hours(s)

A general survey course in law with special emphasis given to administrative law and constitutional law. Students will gain insight into various subject areas of law, the courts and alternative dispute resolution.

### GOV 211 AMERICAN POLITICS & THE MEDIA

3 Lecture 0 Lab 3 Credit Hours(s)

The course will focus on the influence of the media on the American political process. The major topics include how politicians, campaigns and issues are covered by the media, how politicians and interest groups use the media and how the nature of American politics is influenced by the media.

### GOV 219 GLOBAL POLITICS

3 Lecture 0 Lab 3 Credit Hours(s)

The course will analyze the major theoretical foundations of international relations such as realism, idealism, radicalism, and constructivism. Major global problems will be discussed and evaluated as well. These include economic development, nuclear proliferation, and ethnic and religious conflicts. The course will use theory as its focus in order to explain and to understand global problems.

### GOV 220 THE WAR IN VIETNAM

3 Lecture 0 Lab 3 Credit Hours(s)

A study of the origins, nature and effects of warfare by using the War in Vietnam as a case study. This course will survey America's involvement in Vietnam during World War II, the post World War II years, through the Kennedy, Johnson and Nixon administrations, and will evaluate the consequences of the conflict at home and abroad. The course will also analyze America's involvement in the wars in Afghanistan and Iraq, the "war on terrorism," and the future of American foreign policy and its military engagements. Various methodologies are

used in the course in addition to the traditional lecture-discussion approach.

#### GOV 221 COMPARATIVE POLITICAL SYSTEMS

3 Lecture 0 Lab 3 Credit Hours(s)

The course is intended to give students a better understanding of politics in the United States by developing a broad comparative perspective on the practice of politics in the world today. The course will focus on comparisons among European parliamentary nations such as France or Britain and Russia, China and other less developed nations. Careful attention will be paid to the impact of government on individual freedom and economic well-being.

#### GOV 222 STATE AND LOCAL GOVERNMENT

3 Lecture 0 Lab 3 Credit Hours(s)

A detailed examination of the philosophy of state and local government in the American system. The structure, function and political processes of state, county, town, city and smaller units of government, with emphasis upon these units in New York State. This course also includes a study of the federal system and its relevance to the operation of these smaller units of government. (Where possible, the seminar method will be used.)

#### GOV 263 NATL MODEL UNITED NATIONS I

4 Lecture 0 Lab 4 Credit Hours(s)

This course prepares students to participate in the National Model United Nations in New York, a five-day simulation of the UN and its various activities. Prior to the simulation, students prepare by doing extensive research on the country and on the issues before the committees which are assigned. In New York, students deliver speeches, negotiate with other delegates, write resolutions and prepare position papers. The course is designed to provide students with a hands-on experience. Prerequisite: Permission of the Department.

#### GOV 264 NATL MODEL UNITED NATIONS II

4 Lecture 0 Lab 4 Credit Hours(s)

This course prepares students to participate in the National Model United Nations in New York, a five-day simulation of the U.N. and its various activities. Prior to the simulation, students prepare by doing extensive research on the country and on the issues before the committees which are assigned. In New York, students deliver speeches, negotiate with other delegates, write resolutions and prepare position papers. The course is designed to provide students with a hands-on experience. Prerequisite: Permission of the Department.

#### GOV 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty

member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of government or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### GOV 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to GOV 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### GOV 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to GOV 271, except that the student's time commitment to the project will be approximately 105-135 hours.

#### GOV 807 PUBLIC SERVICE INTERNSHIP I

0 Lecture 9 Lab 3 Credit Hours(s)

A community based internship in which students are placed in government offices or in non-profit agencies to gain hands-on experience in the public sector. Students will normally work under the direction of a field supervisor and an HGE faculty member. A minimum of 105 hours of work per semester and the permission of the HGE Department are required.

Prerequisites: Students must have completed GOV 121 plus an ECO course or another GOV course before taking GOV 807.

#### GOV 808 PUBLIC SERVICE INTERNSHIP II

0 Lecture 9 Lab 3 Credit Hours(s)

A community based internship in which students are placed in government offices or in non-profit agencies to gain hands-on experience in the public sector. Students will normally work under the direction of a field supervisor and an HGE faculty member. A minimum of 105 hours of work per semester and the permission of the HGE Department are required. Students must register for GOV 807 before they register for GOV 808.

Prerequisite: GOV 807.

#### GOV 810 PUBLIC SERVICE INTERNSHIP III

0 Lecture 18 Lab 6 Credit Hours(s)

A community based internship in which students are placed in government offices or in non-profit agencies to gain hands-on experience in the public sector. Students will normally work under the direction of a field supervisor and an HGE faculty member. A minimum of 210 hours of work per semester and the permission of the HGE Department are required.

Prerequisites: Students must have completed GOV 121 plus an ECO course or another GOV course before taking GOV 810.

#### GOV 811 PUBLIC SERVICE INTERNSHIP IV

0 Lecture 18 Lab 6 Credit Hours(s)

A community based internship in which students are placed in government offices or in non-profit agencies to gain hands-on experience in the public sector. Students will normally work under the direction of a field supervisor and an HGE faculty member. A minimum of 210 hours of work per semester and the permission of the HGE Department are required.

Prerequisite: GOV 810.

### GENERAL STUDIES

#### GSS 100 GENERAL STUDIES SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

The course will introduce students to the General Studies curriculum and to college life in general. In so doing, it will enable students to make informed decisions about their areas of academic concentration as well as aid them in developing skills deemed essential for success in college.

### HEALTH EDUCATION

#### HED 125 WOMEN'S HEALTH ISSUES

3 Lecture 0 Lab 3 Credit Hours(s)

This three-credit course will identify and explore current health issues that are of special interest or are unique to women. Topics will include emotional well being, stress management, health problems related to female anatomy and physiology, violence against women and issues of reproduction and childbearing.

#### HED 134 FIRST AID, SAFETY, AND CPR

3 Lecture 0 Lab 3 Credit Hours(s)

This course incorporates the study and application of skills to respond to emergencies, the use of CPR and AEDs, and breathing emergencies for conscious and unconscious victims of all ages. Research and awareness of the following safety topics will be covered: Fire Safety, Campus Safety, Home Safety and Motor Vehicle Safety. The study and practice of First Aid skills will include: standard level assessment, prioritization and the demonstrations and application of skills. Those who qualify will earn American Red Cross Certifications for its course: Responding to Emergencies.

#### HED 201 STRESS MANAGEMENT

3 Lecture 0 Lab 3 Credit Hours(s)

In this course, each student will learn the causes and effects of stress, and the basic principles, theories and coping skills/strategies needed to effectively manage

their personal stress. In addition, there will be opportunity for experiential learning with the use of self-analyses, cognitive strategies, relaxation techniques, and other class exercises and activities.

#### HED 203 HEALTH AND AGING

3 Lecture 0 Lab 3 Credit Hours(s)

This course provides an overview of the physical changes that occur with aging and the benefits of a healthy lifestyle on the aging process. Emphasis is placed on healthy aging and maintaining a functional capacity and quality of life with age through engagement in regular exercise and other health promoting behaviors. The interplay between aging, physical health, longevity and health care is a major focus.

#### HED 224 HUMAN SEXUALITY

3 Lecture 0 Lab 3 Credit Hours(s)

A study of physiological, psychological, sociological and gender issues related to sexuality. Topics include: perspectives in sexuality, human sexual expression, love, communication and relationships, human sexual response and dysfunction, sexual health; family planning; non-modal behaviors and sex and the law.

#### HED 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of health education or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### HED 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to HED 271, except that the student's time commitment to the project will be approximately, 70-90 hours.

#### HED 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to HED 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### HISTORY

#### HIS 004 CRSE SPCFC STDY SK-HIS 104

1 Lecture 0 Lab 1 Credit Hours(s)

HIS 004 is a course specific study skills course designed for those students who require support in HIS 104, (History of the United States II) taught by the instructor

of HIS 104, which is taken concurrently. HIS 004 will include work with notetaking, effective reading of texts and supplementary materials, term paper research and organization, map skills and examination preparation, including essay writing and other specific strategies necessary to the successful study of history at the college level.

NOTE: HIS 004 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

#### HIS 101 WEST CIV:ANCNT NEAR EAST-1700

3 Lecture 0 Lab 3 Credit Hours(s)

A survey of the major ideas and events which have shaped the values and institutions of the West from the classical period to approximately 1700. Topics include the Ancient near East, Classical Greece and Rome, Judaism and Early Christianity, the Byzantine, Islamic and Latin Christian Empires of the Early Middle Ages, Feudalism and the Latin Christian Church of the High Middle Ages, the Rise of National States, the Italian and Northern Renaissance, and the Reformation. HIS101 and HIS102 may be taken separately.

Pre-requisites: None

#### HIS 102 WESTERN CIV: 1700 TO PRESENT

3 Lecture 0 Lab 3 Credit Hours(s)

A survey of the major ideas and events which have shaped the values and institutions of the West from 1700 to the present. Topics include the Old Regime, the Enlightenment, the French Revolution, the Rise of Industrialism, Capitalism, Socialism, Imperialism, Nationalism, the Russian Revolution, the Growth of Communism and Fascism, World Wars I and II and the Cold War. HIS 101 and 102 may be taken separately.

#### HIS 103 HISTORY OF THE UNITED STATES I

3 Lecture 0 Lab 3 Credit Hours(s)

HIS 103 is the study of American history from the Colonial Era through the Civil War. The course offers a broad survey of the development of American democracy, with emphasis on the growth of institutions and ideals as they were brought from Europe and modified and developed here. Special attention is given to the development of the national Constitution. HIS 103 and 104 may be taken separately.

#### HIS 104 HISTORY OF UNITED STATES II

3 Lecture 0 Lab 3 Credit Hours(s)

The study of American political, social and intellectual development from 1865 to the present. Topics covered are Reconstruction, the industrial and transportation revolution, the labor movement, the crisis in agriculture, expansion and the new Manifest Destiny, the Progressive

Movement, the Twenties, the Great War, the Great Depression and New Deal, the Second World War, the Cold War, the Civil Rights Movement, the Vietnam War and the Protest Movements of the 1960s, and the Consolidation and Conservative Resurgence of the 1970s and 1980s. HIS 103 and 104 may be taken separately.

#### HIS 107 HISTORY OF WLD CVL BEFORE 1700

3 Lecture 0 Lab 3 Credit Hours(s)

A survey course of the major political, social and cultural developments of the Latin American, Asian, African, European and Middle Eastern civilizations. The course attempts to place historical events, customs and cultures in a global context. The course surveys the major ideas, religions and events that shaped the values of the different world cultures and their institutions from the classical age to 1700.

#### HIS 108 HISTORY OF WRLD CIV SINCE 1700

3 Lecture 0 Lab 3 Credit Hours(s)

A survey of the major political, social and cultural developments of the Latin American, Asian, African, European and Middle Eastern civilizations. The course attempts to place historical events, customs and cultures in a global context. Part II surveys the major ideas and events that shaped the values of the different world cultures and their institutions from 1700 to the present.

#### HIS 181 OVERSEAS STUDY: AMER MIRROR I

3 Lecture 0 Lab 3 Credit Hours(s)

A study of a selected country in order to understand the major political, social and cultural developments of that country. The course attempts to place historical events, customs and cultures in a context whereby the student will be able to appreciate in depth the first-hand observations they will be able to make in the selected country during an intersession visit.

#### HIS 182 OVERSEAS STUDY:AMER MIRROR II

3 Lecture 0 Lab 3 Credit Hours(s)

Students will visit a selected Latin American, Asian, African, European or Middle Eastern country in order to survey the major political, social and cultural developments of the host country. The course attempts to place historical events, customs and cultures in a context whereby the student discovers, through first-hand observation, the ethnic, religious and national composition of the selected country.

#### HIS 206 LATIN AMERICAN HISTORY

3 Lecture 0 Lab 3 Credit Hours(s)

A study of the major social, economic, political, intellectual and cultural developments in Latin American history. Students will explore topics relating to the Maya, Aztec, and Inca cultures, the European colonial experience, the functioning of labor systems in Latin

America and the Caribbean, struggles for independence, relations with the United States, the influences of religious cultures and institutions, and contemporary movements for political change and social justice.

#### HIS 207 HSTRY RUSSIA/SOVIET UNION

3 Lecture 0 Lab 3 Credit Hours(s)

A study of the historical events, social and economic changes, and political developments from the rise of Muscovy to the present day. This course examines Russia under the Czars, the origins and upheaval of the revolutions of 1917 and the evolution of the Soviet Union throughout the twentieth century.

#### HIS 209 HISTORY OF AFRICAN AMERICAN

3 Lecture 0 Lab 3 Credit Hours(s)

This course examines the social, political, economic and cultural history of people of African descent in the United States. Topics covered will include: the ordeal of slavery, the era of Reconstruction, the rise of segregation, the Great Migration, the Harlem Renaissance, the development of Black Nationalism and the Civil Rights Movement.

#### HIS 210 THE HOLOCAUST IN HISTORY

3 Lecture 0 Lab 3 Credit Hours(s)

This course examines the political, social, economic, intellectual and religious sources of the Holocaust, traces its course, and analyzes the way in which it has been interpreted by different nations and historians. Special attention is given to the history of European anti-semitism, the relationship among Nazi ideology, Hitler and the Holocaust, stages of the 'Final Solution', Jewish resistance, behavior of other nations and the meaning of the Holocaust for the present and future.

#### HIS 214 HISTORY OF WOMEN IN U.S.

3 Lecture 0 Lab 3 Credit Hours(s)

An examination of the social, economic and political roles of women in the United States from colonial times to the present. Particular emphasis will be given to the impact that race, class and ethnicity have had on the experiences of women in this country.

#### HIS 215 HISTORY OF NEW YORK CITY

3 Lecture 0 Lab 3 Credit Hours(s)

This course will examine the social, economic, cultural and demographic development of New York City from colonial times to the present. Material will be presented through readings, lectures and films. Two day-long field trips will be taken to the city as part of the course.

#### HIS 216 THE HISTORY OF DUTCHESS COUNTY

3 Lecture 0 Lab 3 Credit Hours(s)

A general survey course of Dutchess County's political, social and economic development from the colonial

period to the present day. Special emphasis is given to the Hudson Valley's leadership throughout the evolution from rural to modern life. The technological, industrial and organizational changes affecting Dutchess County are considered.

#### HIS 217 HISTORY OF CHINA

3 Lecture 0 Lab 3 Credit Hours(s)

The course presents a general survey of the major historical, social, and cultural developments of China. The course begins with ancient China and continues through the present day. Special emphasis is given to the rise of modern China after the 15th century and places Chinese development in a global context.

#### HIS 218 CIVIL WAR AMERICA 1850-1877

3 Lecture 0 Lab 3 Credit Hours(s)

An examination of the causes, course, and consequences of the American Civil War and Reconstruction, from the 1840s to 1877. The class will go beyond the Civil War and Reconstruction as a political crisis and a military conflict, and explore this time period as transformative in America, radically changing the trajectory of American history. In particular the course will cover several broad themes: the crisis of union and disunion; slavery, race, emancipation, and its consequences in both regional and national contexts; the experience and consequences of modern war; the political, social, and constitutional challenges of Reconstruction; and the construction of Civil War memory by different groups that shaped post-war politics and the popular culture of the late 19th century.

#### HIS 220 THE WAR IN VIET NAM

3 Lecture 0 Lab 3 Credit Hours(s)

A study of the origins, nature and effects of warfare by using the War in Viet Nam as a case study. This course will survey America's involvement in Viet Nam during World War II, the post World War II years through the Kennedy, Johnson and Nixon administrations, and will evaluate the consequences of the conflict at home and abroad. The course will also analyze America's involvement in the wars in Afghanistan and Iraq, the "war on terrorism," and the future of American foreign policy and its military engagements. Various methodologies are used in the course in addition to the traditional lecture-discussion approach.

#### HIS 221 MEDIEVAL EUROPE: 600-1500

3 Lecture 0 Lab 3 Credit Hours(s)

An examination of the development of European social, cultural, political, economic and intellectual life from the aftermath of Rome's fall to the Renaissance and the emergence of modern Europe. Topics include: Feudalism and Manorialism; the role of the Western Church; the Carolingian Renaissance; the Crusades; Medieval Kingship; the 12th Century Renaissance; Medieval

Parliaments; the Hundred Years War; and Late Medieval Humanism.

### HIS 225 HISTORY AMER CULTURE & IDEAS

3 Lecture 0 Lab 3 Credit Hours(s)

This course will focus on the cultural and intellectual history of the United States from 1859 to the present. More than a litany of thinkers and ideas, the course will explore the political and social debates that gave those ideas meaning. It will present material in discrete themes, such as the clash of religion and science; urbanization and its anxieties; dissident voices and reform; race, nationalism and imperialism; political theory and reform; alienation and the intellectuals; the response to fascism and war; gender roles and feminist thought; and the globalization of ideas.

### HIS 227 US LABOR & WRKNG-CLASS HISTORY

3 Lecture 0 Lab 3 Credit Hours(s)

U.S. Labor and Working-Class History is a survey course in the history of work, working people, and the labor movement in the United States. The course focuses primarily on the nineteenth and twentieth centuries, but also explores origins and foundations of labor history during the colonial era as well as recent developments of the early twenty-first century.

Prerequisite: ENG 101 with a grade of C or better

### HIS 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of history or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### HIS 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to HIS 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### HIS 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to HIS 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## HUMAN SERVICES

### HMS 100 HUMAN SERVICES INTRO SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

This seminar is designed to provide Human Services students with an opportunity to learn and practice strategies that will enhance their ability to successfully complete their educational program in one of the Human Services fields. Emphasis will be on gaining an understanding of the many career paths available in the field as well as an exploration of personal goals, program philosophy and College resources.

## HUMANITIES

### HUM 205 INTRO TO FILM APPRECIATION

3 Lecture 0 Lab 3 Credit Hours(s)

HUM 205 introduces the student to the aesthetics of film by surveying the fundamental aspects of film as an art form. The student will learn about film form; film techniques such as mise en scene, cinematography, editing and sound, film criticism and film history.

### HUM 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, travel, work experience or other activities that advance the student's knowledge and competence in writing, literature or related subjects. The student's time commitment to the project will be approximately 35-50 hours.

### HUM 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to HUM 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### HUM 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to HUM 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## INTERDISCIPLINARY

### INT 801 POUGHKEEPSIE INSTITUTE

3 Lecture 0 Lab 3 Credit Hours(s)

Art in Poughkeepsie, a team-taught, multi-disciplinary, intercollegiate course, will consider the emerging role of art in the City of Poughkeepsie from three perspectives: art as economic development, art as human development and art as art. There will be traditional classroom work as



well as a strong emphasis on direct community research. The class findings will be issued as a written report, documentary video and photography show presented to the Mayor of the City of Poughkeepsie and the Common Council, as well as a separate press conference. The course is limited to five students from each of the participating Poughkeepsie Institute's colleges: Dutchess Community, Marist, SUNY New Paltz, The Culinary Institute of America and Vassar.  
Prerequisite: Permission of the instructor.

## ITALIAN

### ITL 101 ELEMENTARY ITALIAN I

3 Lecture 1 Lab 3 Credit Hours(s)  
Emphasis on oral and aural training through conversation based on model sentences and word patterns commonly used in spoken language. Intensive drills and pattern practices are supplemented by independent practice outside of class. Tape recorders and other audio aids are used extensively. Open only to students who have not studied Italian previously. Native speakers should contact the Department to determine their level and what courses they may take for credit.  
Note: Students must register for both a lecture and a lab.

### ITL 102 ELEMENTARY ITALIAN II

3 Lecture 1 Lab 3 Credit Hours(s)  
Italian 102 is a continuation of Italian 101 and thus continues the study of sounds, structure and grammatical concepts but with a growing emphasis on conversational ability. It is, ideally, the second step of a sequence, which would include Italian 101, 102, 201 and 202. An attempt is made to familiarize students with the three language skills: listening comprehension, speaking and writing. An hour a week of independent lab work, which involves listening to tapes, which accompany each lesson, is a requirement of the course and will help the student in the comprehension and speaking skills. Italian 102 would be appropriate for someone who has successfully completed Italian 101 or a student with two years of high school Italian. Native speakers should contact the Department to determine their level and what courses they may take for credit.  
Note: Students must register for both a lecture and lab.

### ITL 199 ITALIAN REVIEW

3 Lecture 1 Lab 3 Credit Hours(s)  
A course designed for students with some formal learning of the Italian language, such as one or more years of high school Italian and who do not feel ready for ITL 201 (Intermediate Italian). The course is a general review of basic Italian grammar and patterns of communication. The emphasis is on understanding and speaking Italian. Writing is used to consolidate learning. The content of both ITL 101 and ITL 102 is covered in one semester.  
Note: Students must register for both a lecture and a lab.

Prerequisite: Permission of department.

### ITL 201 INTERMEDIATE ITALIAN I

3 Lecture 0 Lab 3 Credit Hours(s)  
An intermediate course designed for students with some earlier background in Italian. Emphasis is placed upon developing further conversational ability by study and reading from suitable Italian literary work.  
Note: Native speakers should contact the Department to determine their level and what courses they may take for credit.  
Prerequisite: ITL 102 or permission of department.

### ITL 202 INTERMEDIATE ITALIAN II

3 Lecture 0 Lab 3 Credit Hours(s)  
A continuation of Italian 201. Emphasis is placed upon developing conversational ability by studying and reading from suitable Italian literary works.  
Note: Native speakers should contact the Department to determine their level and what courses they may take for credit.  
Prerequisite: ITL 201 or permission of department.

### ITL 204 ITALIAN CULTURE AND LANGUAGE I

3 Lecture 0 Lab 3 Credit Hours(s)  
An intensive course, three hours per day, five days per week, to be offered in Italy. The duration of the course is approximately six weeks. It includes guided excursions to areas of cultural interest. Students are housed with local families whenever possible. Participation subject to approval of the department.

### ITL 205 ITALIAN CULTURE & LANGUAGE II

3 Lecture 0 Lab 3 Credit Hours(s)  
An intensive course, three hours per day, five days per week, to be offered in Italy. The duration of the course is approximately six weeks. It includes guided excursions to areas of cultural interest. Students are housed with local families whenever possible. Participation subject to approval of the department.

### ITL 208 CTRN APP-FOREIGN LANG SKILLS

3 Lecture 0 Lab 3 Credit Hours(s)  
A cultural project which offers students the opportunity to learn about language in a non-traditional set up, to be creative and innovative, to relate language to culture and to test their skills in a communicative manner while rendering a service to the community. Since the course offering changes every year, students should inquire from the department as to what the focus is for that specific semester. Open to students of Spanish or Italian or French. Students to select one language.  
Prerequisite: ITL 102 or permission of the instructor.

### ITL 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, work experience, or other activities that advance the student's knowledge and competence in the Italian language. The student's time commitment to the project will be approximately 35-50 hours.

### ITL 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to ITL 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### ITL 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to ITL 271, except that the student's time commitment to the project will be approximately 105-135 hrs.

## LIBERAL ARTS HUMANITIES

### LAH 100 LIB ARTS HUMANITIES INTRO SEM

1 Lecture 0 Lab 1 Credit Hours(s)

This course is an introduction to the Liberal Arts and Humanities. It is designed to assist students in developing skills appropriate for college freshman so that they will become more effective life-long learners. The course has a liberal arts component emphasizing the nature of a liberal arts education and its associated values, and a college component, which will aid the student in the continued development of essential skills for success in college.

## LIBERAL ARTS MATH

### LAM 100 LIB ARTS MATH INTRO SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

This course will orient students matriculated in the LAM curriculum to the college and to the curriculum.

Corequisite: This course is intended for LAM students enrolled in MAT 185, 215, 221, 222, 223 or 224. All other LAM students must take CLP 101.

## LIBERAL ARTS TEACHING

### LAT 100 LIBERL ARTS TEACHING INTRO SEM

1 Lecture 0 Lab 1 Credit Hours(s)

This course will focus on topics related to both success in college and preparing for a career in teaching at the elementary and /or secondary level.

### LAT 200 LEARNER DIVERSITY IN ELEM CLS

3 Lecture 0 Lab 3 Credit Hours(s)

A foundation course highlighting the ecology of the contemporary elementary school classroom. The content focuses on learner diversity as related to language, gender, cultural, ethnic and learning differences. The role of community and family supports, as well as current legislation and mandates will be addressed. Observation and other relevant field experiences will be used to evaluate current educational practices.

Prerequisite: LAT 100, BHS 207, PSY 203, or PSY 221.

### LAT 201 ED SETTINGS: ADOL LRNING ENVIR

1 Lecture 0 Lab 1 Credit Hours(s)

A survey of the major methods of observing, recording and reporting learners' behaviors for individuals planning to teach at the secondary level, grades 7-12. Observations and other relevant field experiences will be used for illustration and to practice skills.

Pre- or Co-requisites: LAT 100, BHS 207 and PSY 204 or permission of the department head.

## LIBERAL STUDIES

### LSS 100 HONORS INTRODUCTORY SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

This course will introduce Honors students to all aspects of the Honors offerings and the college. Its focus will be on research and writing techniques in literature, social science and history. Special concerns of Honors students will be included.

### LSS 201 LIBERAL STUDIES SEMINAR

3 Lecture 0 Lab 3 Credit Hours(s)

This seminar culminates Honors courses by applying historical, sociological and literary analysis to a selected topic. Student independent research will be conducted and presented under careful supervision of one or more instructors. Prerequisite: Permission of Honors Coordinator.

## MATHEMATICS

### MAT 090 STRATEGIES FOR SUCCESS IN MATH

1 Lecture 0 Lab 1 Credit Hours(s)

MAT090 is designed to provide students with the tools they need to achieve a higher level of success in their entry level mathematics courses. Students who have fully participated in but have been unsuccessful in 0-level math courses should take this course. The course is designed to help students understand and learn the skills that are required to be successful in mathematics. Students will learn to be active rather than passive participants in the learning process. Students will work individually and collaboratively throughout the course.

Co-requisite: A co-requisite of at least one MAT course.

### MAT 091 BEGINNING ALGEBRA

3 Lecture 0 Lab 3 Credit Hours(s)

Beginning Algebra is intended for students who need a foundation in, or to review the general topics related to Algebra. Topics covered include operations with fractions, signed numbers, solving equations, factoring, linear equations and polynomials. A grade of C or better is required for entrance into MAT 099 or or MAT 109 or MAT 118 or MAT 131. MAT 092 (Math Literacy for College Students) is preferred for students going to MAT 109 or 118, but a C in MAT 091 will still serve as a prerequisite.

Prerequisites: Placement level 1 (see DCC Math Placement Table).

### MAT 092 MATH LITERACY FOR COLL STUDNTS

3 Lecture 0 Lab 3 Credit Hours(s)

This course will provide students with the essential quantitative skills and knowledge needed in the workplace, and needed for entrance into BUS 101, MAT 109, MAT 116, MAT 118, or 100-level general education science courses. It will emphasize number sense, percents, computational ability, and basic applications of mathematics including graphs and rate of change.

Prerequisite: Placement level 1 (see DCC Math Placement Table).

### MAT 095 INTERMEDIATE ALGEBRA PART I

1 Lecture 0 Lab 1 Credit Hours(s)

This is the first credit of the three-credit Intermediate Algebra sequence of courses. Topics covered include using function notation, finding domain and range, and identifying basic features of linear, quadratic, and exponential functions. A TI-83 or TI-84 calculator is required. If placed into this course, then a grade of C or higher in this course is required for entrance to the Intermediate Algebra Part II course.

Prerequisites: 71-77 on Common Core Regents Algebra 1 OR 55 or higher on Common Core Geometry OR 0-71 on Common Core Algebra 2 OR 75-84 on Integrated Algebra Regents OR 50 or higher on Geometry Regents OR MAT 091 with at least a C OR Accuplacer Elementary Algebra Score from 55-74 OR Accuplacer College Level score from 0-55 OR Compass Algebra exam score of 49 or higher. Students that took MAT 092 instead of MAT 091 must have an A- in MAT 092 or receive approval from the department. If the score used for placement is over 2.5 years old, then place the student in the prerequisite course that is one placement-level lower.

### MAT 096 INTERMEDIATE ALGEBRA PART II

1 Lecture 0 Lab 1 Credit Hours(s)

This is the second credit of the three-credit Intermediate Algebra sequence of courses. Topics covered include graphically and numerically solving problems with the

calculator, expanding and factoring and the quadratic formula, finding equations of linear functions, and interpreting the real-world meaning of the features of a function. A TI-83 or TI-84 calculator is required. If placed into this course, then a grade of C or higher in this course is required for entrance to Intermediate Algebra Part III. Pre-requisite: MAT095, Intermediate Algebra Part I, with C or higher.

### MAT 097 INTERMEDIATE ALGEBRA PART III

1 Lecture 0 Lab 1 Credit Hours(s)

This is the final credit of the three-credit Intermediate Algebra sequence of courses. Topics covered include fractions without a calculator, exponent rules, systems of equations, and basic applications. A TI-83 or TI-84 calculator is required. If placed into this course, then a grade of C or higher in this course is required for entrance to College Algebra (MAT110) or Math for Elementary School Teachers (MAT107) or Algebra and Trigonometry for Pre-Calculus (MAT184).

Prerequisites: MAT096, Intermediate Algebra Part II, with a C or higher.

### MAT 099 INTERMEDIATE ALGEBRA COMBINED

3 Lecture 0 Lab 3 Credit Hours(s)

MAT099 is intended for students who must bring their mathematics proficiency to the level necessary for entrance into MAT110, 184, or 107. This course cannot be used to satisfy the mathematics requirement of the Associate in Art degree program. MAT109 will fulfill the mathematics requirement for many students in Associate of Arts degree programs. Topics include: Functions, Linear Functions, Quadratic Functions, Exponential Functions, Solving Equations symbolically and graphically and numerically, Systems of Linear Equations, Factoring and Graphing. The TI-83, or TI-83 Plus, or TI-84 or TI-84 Plus is required.

Prerequisite: Placement level 2 (see DCC Math Placement Table), OR MAT 091 with C or higher, OR MAT 092 with A- or higher.

### MAT 104 BUSINESS MATHEMATICS

3 Lecture 0 Lab 3 Credit Hours(s)

This course covers the mathematical processes and techniques currently used in the fields of business and finance. It includes a review of basic math skills with particular emphasis on percentages, interest, discounts and mark-ups. Incorporating technology with some basic arithmetic, the course will provide students with the current applications and procedures in business for payroll taxes, sales tax, bank statement and reconciliation, establishing retail prices, consumer credit, compund interest, and business and consumer loans. The course also provides a basic introduction to Business Statistics including averages, measures of relative standing, and frequency distributions.

Prerequisite: MAT 091 or MAT 092 with a grade of C or higher OR qualifying Accuplacer score.

### MAT 107 MATHEMATICS FOR ELEM TEACHERS

3 Lecture 0 Lab 3 Credit Hours(s)

This course meets the Math requirement for students who are enrolled in the Liberal Arts and Sciences: Education, Early Childhood Education (Birth - Grade 2) and Childhood Education (Grade 1-6) dual certification with SUNY New Paltz, A.S. degree program and who plan to transfer to SUNY New Paltz. The emphasis is on problem-solving as it relates to the number system. Probability and statistics are also introduced.

Prerequisites: Placement level 3 (see Math Placement Table) OR DCC Intermediate Algebra with C or higher, OR MAT 131 with C or higher.

### MAT 109 SURVEY OF MATHEMATICS

3 Lecture 0 Lab 3 Credit Hours(s)

The course will allow students the opportunity to explore mathematics through interesting real life applications, as they strengthen their critical thinking and practical problem solving skills. Students will be required to use contemporary technology, perform web research and will work collaboratively throughout the course. Topics will include geometry, probability, statistics, and finance. Other topics may include history of mathematics and modern mathematical systems.

Prerequisites: Placement level 2 (See DCC Math Placement Table), OR MAT 091 with C or higher, OR MAT 092 with C or higher.

### MAT 110 COLLEGE ALGEBRA

3 Lecture 0 Lab 3 Credit Hours(s)

This course satisfies the SUNY General Education mathematics requirement and is the prerequisite for Business Calculus (MAT125). Topics include applications of linear, reciprocal, exponential, logarithmic, power, and quadratic functions; composition and inverses of functions; systems of equations; regression; and piecewise equations. Students will solve equations both algebraically and graphically. Use of the one of the following graphing calculators will be required: TI-83, 83 Plus, 84 or 84 Plus. Not for students who intend to take MAT185, 221, 222 or 223.

Prerequisites: Placement level 3 (see DCC Math Placement Table), OR DCC Intermediate Algebra with C or higher, OR MAT 131 with C or higher.

### MAT 116 EXPLORING APPLICATIONS OF MATH

3 Lecture 0 Lab 3 Credit Hours(s)

This course gives students the opportunity to explore mathematics through interesting, real life applications. Each semester students will select an area of study

such as forensic science, amusement park ride design, encryption, the cellular phone industry, etc. Mathematics will be presented in class, as it is needed, within the context of the problem being explored. The emphasis of this course is on helping students get a better understanding of the links between mathematics and real life applications as they strengthen their critical thinking and practical problem solving skills. Students will be required to do web research and will work collaboratively throughout the course.

Prerequisites: Regents Algebra 2/Trig score, ANY score from the last two years, OR Regents Geometry score of 50 or more in the last two years, OR Regents Integrated Algebra score of 75 or more in the last two years, OR MAT 092 OR MAT 091, OR Accuplacer Arithmetic score of 110 or higher, OR Accuplacer Elementary Algebra score of 55 or higher.

### MAT 117 MATH FOR ELEM SCHL TEACHRS II

3 Lecture 0 Lab 3 Credit Hours(s)

This course is a requirement for students in Early Childhood Education (Birth-Grade 2) and Childhood Education (Grade 1-6) programs. It emphasizes background information for the teaching of elementary school geometry. Topics include spatial visualization, measurement, coordinate geometry, similarity and congruence, and transformational geometry. Students learn mathematical theory and application, and experience the role of elementary school students through a variety of classroom activities and demonstrations.

Pre-requisite: MAT107 with a grade of C or better  
3 Lecture 0 Lab 3 Credit Hours

### MAT 118 ELEMENTARY STATISTICS

3 Lecture 0 Lab 3 Credit Hours(s)

Satisfies the mathematics requirement of the Associate in Arts degree program. Basic statistical procedures are developed. Topics include descriptive statistics; probability; probability distributions; hypothesis testing; confidence intervals; correlation and regression. Technology (either a graphing calculator from the TI-83/84 family or a statistical analysis software) will be used regularly throughout the course.

Prerequisites: Placement level 2 (see DCC Math Placement Table), OR MAT 091 with C or higher, OR MAT 092 with C or higher.

### MAT 125 CALCULUS W/ BUSINESS APPL

4 Lecture 0 Lab 4 Credit Hours(s)

A survey of the basic concepts and operations of calculus with business and management applications. Designed for students in the Business Administration Transfer program and should not be taken by mathematics and science majors. Students will use Microsoft

Excel extensively throughout the course. No previous knowledge of Excel is required.

Prerequisite: Placement level 4 (see DCC Math Placement Table) OR MAT 110 with C or higher, OR MAT 184 with C or higher, OR MAT 132 with C or higher.

### MAT 131 TECHNICAL MATHEMATICS I

3 Lecture 0 Lab 3 Credit Hours(s)

This course satisfies the math requirement for the Applied Academic Certificate in ACR. It is designed for those students who need to improve their math proficiency for entrance into MAT 132. Topics include: review of operations on whole numbers, fractions, and decimals; operations using signed numbers; exponents and roots; scientific notation; unit analysis; percentage; algebraic expressions; factoring; linear equations; literal equations; geometry of the triangle, circle and regular polygons; measurement conversions; and introduction to basic trigonometry. Use of a scientific calculator is required.

Prerequisites: Placement level 2 (see DCC Math Placement Table), OR MAT 091 with C or higher, OR MAT 092 with A- or higher.

### MAT 132 TECHNICAL MATHEMATICS II

3 Lecture 0 Lab 3 Credit Hours(s)

This course satisfies the mathematics requirement for students in ARC, CNS, FIR and FTP. Students enrolled in the above curricula may receive credit for MAT 132 or MAT 110, but not both. Topics include a review of right triangle trigonometry, law of sines and cosines, vectors, factoring, literal, fractional and quadratic equations and applications. Use of a scientific calculator is required.

Prerequisites: Placement level 3 (see DCC Math Placement Table), OR MAT 131 with C or higher.

### MAT 184 ALGEBRA & TRIG FOR PRECALCULUS

3 Lecture 0 Lab 3 Credit Hours(s)

Satisfies the mathematics requirement of the Associate in Arts degree program, and is intended to prepare students for MAT185 (Precalculus). Topics include equations and inequalities, graphing techniques, analysis of a variety of functions, and triangle trigonometry including the Laws of Sines and Cosines.

Prerequisites: Placement level 3 (see DCC Math Placement Table), OR DCC Intermediate Algebra with C or higher, OR MAT 131 with C or higher.

### MAT 185 PRECALCULUS

4 Lecture 0 Lab 4 Credit Hours(s)

This course is intended primarily for students planning to take calculus. Topics include a study of functions, specifically: linear, polynomial, rational, trigonometric, exponential, logarithmic, and inverse functions. Modeling and data analysis techniques are also employed.

Conceptual understanding is emphasized and algebraic skills are reinforced throughout the course. A graphing calculator from the TI-83/84 family of calculators is required for this course.

Prerequisites: Placement level 4 (see DCC Math Placement Table), OR MAT 184 with C or higher, or MAT 132 with C or higher, OR MAT 110 with A- or higher.

### MAT 214 DISCRETE MATH USING PROOFS

3 Lecture 0 Lab 3 Credit Hours(s)

Intended primarily for students in the CPS, EDM, or LAM curriculum. Students will be introduced to mathematical reasoning and proof techniques through topics in discrete mathematics. The topics selected for this course will be from areas of logic, set theory, combinatorics, number theory and functions. Direct and indirect proof methods will be covered along with the technique of mathematical induction.

Prerequisite: MAT 221 with a C or better.

### MAT 215 INTRO TO LINEAR ALGEBRA

3 Lecture 0 Lab 3 Credit Hours(s)

A basic introduction to linear algebra. Topics include vector spaces, systems of linear equations, matrices and determinants and linear transformations. Required for prospective mathematics majors.

Prerequisite: MAT 222 with a grade of C or better.

### MAT 221 CALCULUS I

4 Lecture 0 Lab 4 Credit Hours(s)

This course is the first of a three-semester sequence developing calculus for the student majoring in engineering, mathematics, or the sciences. Topics include the derivative, limits, continuity, differentiability, the definite integral, the Fundamental Theorem of Calculus, techniques of differentiation (including for transcendental functions), applications of differentiation, mathematical modeling and computer applications. A graphing calculator from the TI-83/84 family of calculators is required for this course.

Prerequisites: MAT 185 with a grade of at least C, OR one year of high school Precalculus with a grade of at least 70 AND Compass Trigonometry Score of at least 46, OR permission of the department.

### MAT 222 CALCULUS II

4 Lecture 0 Lab 4 Credit Hours(s)

This course is the second of a three-semester sequence developing calculus for the student majoring in engineering, mathematics or the sciences. Topics include the Fundamental Theorems of calculus, definite and indefinite integrals, techniques of integration, improper integrals, applications of integration, sequences, series and Taylor series, differential equations, mathematical modeling and computer applications. A graphing

calculator from the TI-83/84 family of calculators is required for this course.

Prerequisite: MAT 221 with a grade of C or better, or permission of the department.

#### MAT 223 CALCULUS III

4 Lecture 0 Lab 4 Credit Hours(s)

A continuation of MAT 222. Topics include vectors in the plane, solid analytic geometry, functions of several variables, partial differentiation, multiple integration, line integrals and vector fields, Green's Theorem, Stokes' Theorem, applications. A graphing calculator from the TI-83/84 family of calculators is required for this course. Prerequisite: MAT 222 with a grade of C or better or advanced placement with the permission of the department.

#### MAT 224 DIFFERENTIAL EQUATIONS

4 Lecture 0 Lab 4 Credit Hours(s)

An introductory course in differential equations for students in mathematics, engineering and the sciences. Topics include the theory, solution and estimation of first and second order differential equations, systems of differential equations, the Laplace transform, and applications of differential equations.

Prerequisite: MAT 223 with a grade of C or better.

#### MAT 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of mathematics or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### MAT 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to MAT 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### MAT 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to MAT 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### **MEDICAL LABORATORY TECH**

#### MLT 005 CRSE SPCFC STDY SK-MLT 105

1 Lecture 0 Lab 1 Credit Hours(s)

A study skills course designed specifically for MLT 105 students. Course will present systematic study strategies with guided practice to enable students to master study skills techniques.

Co-requisite: MLT105

#### MLT 101 CLINICAL MICROBIOLOGY

3 Lecture 3 Lab 4 Credit Hours(s)

A study of the principles of pathogenic microbes, their isolation and identification, and antibiotic sensitivity testing. Emphasis will be placed on procedures and techniques currently in use in medical laboratories. A study of serological procedures and interpretations will be included. Emphasis will be on performance of procedures and interpretation of results as they relate to disease conditions. Note: Course may be repeated one time. Students must register for both a lecture and a lab: 3 Lecture, 3 Lab, 4 Credit Hours.

Prerequisite: MLT 105 with a grade of C or better.

#### MLT 105 CLINICAL HEMATOLOGY

3 Lecture 3 Lab 4 Credit Hours(s)

A study of standard tests and techniques presently performed in the clinical laboratory. Course will include emphasis on blood counts, coagulation procedures, hemoglobin, hematocrit, differential smear evaluations, sedimentation rates, indices, platelet and reticulocyte counts. Methods of blood collection, including phlebotomy and capillary puncture techniques, will be taught. Also included is the study of the origin and development of blood, human blood in normal and disease states, blood hemostasis and coagulation deficiencies.

Note: Course may be repeated one time. Students must register for both a lecture and a lab: 3 Lecture, 3 Lab, 4 Credit Hours.

Prerequisite: ENG 092 and MAT 091 with a grade of C or better or eligibility to enroll in ENG 101 and MAT 099 or the equivalent, as determined by placement testing results. Grade of C or better required to continue to MLT 101 and MLT 106.

#### MLT 106 IMMUNOHEMATOLOGY/SEROLOGY

2 Lecture 3 Lab 3 Credit Hours(s)

A study of the immunological makeup of the human body. Emphasis will be on the immune process, blood banking, blood components, preparation and administration of blood components, the genetics of blood group inheritance and serological testing.

Note: Course may be repeated one time.

Prerequisite: MLT 105 with a grade of C or better and concurrent enrollment in MLT 202.

#### MLT 202 PARASITOLOGY/BODY FLUIDS

2 Lecture 3 Lab 3 Credit Hours(s)

Protozoans and helminthes that infect or infest humans will be studied, including the organism's life cycle, morphology and transmission. Host response and pathology will also be covered. Practical classes on recognition of parasites in stool samples, blood, tissues and free living states are required. Special emphasis is placed upon those aspects of the life cycle that are useful for clinical diagnosis. Body fluids including amniotic, synovial, cerebrospinal and semen will also be studied. Note: Course may be repeated one time. Students must register for both a lecture and a lab: 2 Lecture, 3 Lab, 3 Credit Hours.

Prerequisite: MLT 101 with a grade of C or better and concurrent enrollment in MLT 106.

#### MLT 203 CLINICAL CHEMISTRY I

3 Lecture 3 Lab 4 Credit Hours(s)

A study of the basic concepts fundamental to the study of the chemical constituents of the human body. Emphasis will be placed on analytical procedures, interpretation of results, normal values, instrumentation, laboratory mathematics, and theory and application of clinical chemistry procedures. Analysis of urine carbohydrates, lipids, proteins and liver function tests will be covered.

Note: Course may be repeated one time.

Prerequisite: CHE 121 with a grade of C or better and MAT 118.

#### MLT 204 CLINICAL CHEMISTRY II

2 Lecture 3 Lab 3 Credit Hours(s)

A continuation of Clinical Chemistry I with emphasis on the more involved and intricate biochemical testing procedures. The study of lipids, acid-base balance, electrolytes, hormones, therapeutic drugs, toxicology, cerebrospinal fluid, and special chemistry will be covered.

Prerequisite: MLT203 with a grade C or better.

#### MLT 207 EXTERNSHIP I

0 Lecture 16 Lab 4 Credit Hours(s)

Resident internship in an approved laboratory where didactics and actual job performance are integrated in a clinical work-study setting. Students will rotate through each department.

Note: Course may be repeated one time.

Prerequisites: MLT 106 and MLT 202 with a grade of C or better and concurrent enrollment in MLT 204.

#### MLT 208 EXTERNSHIP II

0 Lecture 16 Lab 4 Credit Hours(s)

A continuation of MLT 207 with continuing rotation through various departments in the clinical laboratory.

Note: Course may be repeated one time.

Prerequisite: MLT 106 and 202 with a grade of C or better, and concurrent enrollment in MLT 204.

#### MLT 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of medical laboratory technology or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### MLT 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to MLT 271 except that the student's time commitment to the project will be approximately 70-90 hours.

#### MLT 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to MLT 271 except that the student's time commitment to the project will be approximately 105-135 hours.

### MEDICAL SERVICES OCCUPATIONS

#### MSO 102 MEDICAL TERMINOLOGY

2 Lecture 0 Lab 2 Credit Hours(s)

The course will focus on the recognition of common prefixes, suffixes and root words that comprise medical terminology. The student will acquire an understanding of medical language applicable to the structure, function, diagnostic, therapeutic and symptomatic terminology of all body organ systems. Emphasis is placed on definition usage, abbreviations and deciphering of unfamiliar medical terms.

### MUSIC

#### MUS 101 MUSIC APPRECIATION

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed for musicians and non-musicians. It develops a basic music theory vocabulary and ability to actively listen to engage in a historical overview of musical styles through recorded and visual materials. The aim is to stimulate a discriminating understanding and enjoyment of music.

#### MUS 104 INTRODUCTION TO MUSIC THEORY

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed for both musicians and non-musicians. It is a preparatory course for students with little or no prior training in music theory. The class provides students with a solid foundation in the rudiments of music notation and aural awareness including pitch,

accidentals, rhythm, clefs, major and minor scales, and key signatures. The Circle of Fifths, triad types, simple and compound meters and intervals are also presented. Elementary ear training exercises are incorporated.  
Pre-requisite: None.

#### MUS 113 AURAL SKILLS I

0 Lecture 2 Lab 1 Credit Hours(s)  
This course is designed for musicians and requires prior knowledge and ability to read music. Students learn how to sing a melody from written music (sightsing), and write down music by ear (dictation). Material included rhythms in simple and compound meter, scales, triads, and simple intervals. Students learn to use moveable "do" solfege and conducting patterns. Concurrent enrollment in MUS 115: Theory I is recommended.  
Pre-requisite: None.

#### MUS 114 AURAL SKILLS II

0 Lecture 2 Lab 1 Credit Hours(s)  
Aural Skills II increases a student's musical cognition and awareness by focusing on melodic and rhythmic dictation. Harmonic dictation is introduced. Aural analysis and dictation proceed from simple to more complex melodies. Sight-singing and rhythm drills include alto and tenor clef exercises. Concurrent enrollment in MUS 116: Theory II is recommended.  
Prerequisite: MUS 113

#### MUS 115 MUSIC THEORY I

3 Lecture 0 Lab 3 Credit Hours(s)  
This course is designed for musicians and requires prior knowledge and ability to read music. Material covered includes a review of notation, meter, rhythm, scales, and key signatures, and continues with a study of intervals, triads, figured bass, Roman Numeral analysis, melodic analysis, part writing, and nonchord tones. Concurrent enrollment in MUS 113: Aural Skills I is strongly recommended.

#### MUS 116 MUSIC THEORY II

3 Lecture 0 Lab 3 Credit Hours(s)  
This course is a study of four-part chorale harmonization including all diatonic seventh chords, secondary dominants, modulation, binary and ternary forms, mode mixture, Neapolitan chords, and augmented sixth chords. Concurrent enrollment in MUS 114: Aural Skills II is strongly recommended.  
Prerequisite: MUS 115

#### MUS 121 CHORUS I

0 Lecture 2 Lab 1 Credit Hours(s)  
The purpose of this course is to improve the student's ensemble singing through the study and performance of choral music in a variety of musical styles. The course

includes at least one public concert providing students an opportunity to perform mastered repertoire.

#### MUS 122 CHORUS II

0 Lecture 2 Lab 1 Credit Hours(s)  
The purpose of this course is to improve the student's ensemble singing through the study and performance of choral music in a variety of musical styles. The course includes at least one public concert providing students an opportunity to perform mastered repertoire.

#### MUS 131 JAZZ ENSEMBLE I

0 Lecture 2 Lab 1 Credit Hours(s)  
This course is designed for musicians and requires prior knowledge and ability to read music. Students rehearse and perform jazz ensemble music. The course is open to students playing saxophone, trumpet, trombone, piano, guitar, bass, drums, or percussion. There is one on-campus concert, and additional performances may be required. Students are expected to supply their own instruments in working condition. Concurrent enrollment in MUS 135: Jazz: Its History and Influence is recommended.

#### MUS 132 JAZZ ENSEMBLE II

0 Lecture 2 Lab 1 Credit Hours(s)  
This course is designed for musicians and requires prior knowledge and ability to read music. This is a jazz performance ensemble open to students playing saxophone, trumpet, trombone, piano, guitar, bass, drums, or percussion. There is at least one scheduled public concert per semester.  
Prerequisite: MUS 131

#### MUS 135 JAZZ HISTORY

3 Lecture 0 Lab 3 Credit Hours(s)  
This course is designed for both musicians and non-musicians. It develops a basic music theory vocabulary to engage in a historical overview of jazz. Recorded and visual materials are utilized in studying the elements, forms and styles of music with the aim of stimulating a discriminating understanding and enjoyment.

#### MUS 136 ORCHESTRA I

0 Lecture 2 Lab 1 Credit Hours(s)  
This course is designed for musicians and requires prior knowledge and ability to read music. Students rehearse and perform orchestral music. The course is open to students playing flute, oboe, clarinet, bassoon, horn, trumpet, trombone, tuba, violin, viola, cello, double bass, or percussion at a level NYSSMA 4 or higher. There is one on-campus concert, and two additional public concerts in the community. Students are expected to supply their own instruments in working condition.



### MUS 137 ORCHESTRA II

0 Lecture 2 Lab 1 Credit Hours(s)

This course is designed for musicians and requires prior knowledge and ability to read music. Students rehearse and perform orchestral music. The course is open to students playing flute, oboe, clarinet, bassoon, horn, trumpet, trombone, tuba, violin, viola, cello, double bass, or percussion at a level NYSSMA 4 or higher. There is one on-campus concert, and two additional public concerts in the community. Students are expected to supply their own instruments in working condition.

Prerequisite: MUS 136

### MUS 138 JAZZ IMPROVISATION

0 Lecture 2 Lab 1 Credit Hours(s)

Students learn the basics of jazz improvisation through a study of rhythm and a thorough examination of scales, chords, and how they can be applied. Emphasis is placed on a theoretical understanding of musical building blocks and through individual improvisatory solos which utilize that knowledge. This course is designed for instrumentalists and vocalists that know how to read music and are proficient on their instrument. Students bring instruments to class, as learning is primarily hands-on and experiential. Recorded examples of important developments in various styles of jazz improvisation are listened to, analyzed and discussed in class.

Pre-requisites: MUS 104 or MUS 115

### MUS 141 PIANO I

0 Lecture 2 Lab 1 Credit Hours(s)

This course provides students with individual piano lessons in a variety of styles from classical to jazz to modern. Students receive weekly 30 minute lessons, perform a jury at the end of the semester, and must pay an additional private lesson course fee. Students must attend a one-time meeting the first Friday of the semester with the Music Coordinator, after which they schedule their weekly lessons based on a time that fits both student and instructor schedules.

### MUS 142 PIANO II

0 Lecture 2 Lab 1 Credit Hours(s)

This course provides students with individual piano lessons in a variety of styles from classical to jazz to modern. Students receive weekly 30 minute lessons, perform a jury at the end of the semester, and must pay an additional private lesson course fee. Students must attend a one-time meeting the first Friday of the semester with the Music Coordinator, after which they schedule their weekly lessons based on a time that fits both student and instructor schedules.

Prerequisite or Corequisite: MUS 141

### MUS 143 GUITAR ENSEMBLE I

0 Lecture 2 Lab 1 Credit Hours(s)

This course is designed for musicians and requires prior knowledge and ability to read music. Students rehearse and perform guitar ensemble music. The course is open to students who play acoustic guitar. There is one on-campus concert, and additional performances may be required. Students are expected to supply their own instruments in working condition.

### MUS 144 GUITAR ENSEMBLE II

0 Lecture 2 Lab 1 Credit Hours(s)

This course is designed for musicians and requires prior knowledge and ability to read music. Students rehearse and perform guitar ensemble music. The course is open to students who play acoustic guitar. There is one on-campus concert, and additional performances may be required. Students are expected to supply their own instruments in working condition.

### MUS 145 GROUP PIANO I

0 Lecture 2 Lab 1 Credit Hours(s)

This course is designed to promote facility at the keyboard for students with prior musical training but little or no keyboard/piano skills. Students are presented with general keyboard techniques, and learn solo and group repertoire which they perform in class.

Pre/Co-Requisites: None

### MUS 146 GROUP PIANO II

0 Lecture 2 Lab 1 Credit Hours(s)

This course is designed to promote facility at the keyboard for students with prior musical training but basic keyboard/piano skills. Students are presented with general keyboard techniques, and learn solo and group repertoire which they perform in class.

0 Lec., 2 Lab, 1 Cr. Hrs.

Prerequisite: MUS145.

### MUS 153 SHOW CHOIR I

0 Lecture 2 Lab 1 Credit Hours(s)

A musical theatre course, this class rehearses and performs Broadway and pop songs in a choir setting, with ample opportunity for solos, dance and choreography. In addition to on-campus performances, members must be able to coordinate transportation to multiple off-campus performances.

### MUS 154 SHOW CHOIR II

0 Lecture 2 Lab 1 Credit Hours(s)

A musical theatre course, this class rehearses and performs Broadway and pop songs in a choir setting, with ample opportunity for solos, dance and choreography. In addition to on-campus performances, members must be able to coordinate transportation to multiple off-campus performances.

Prerequisite: MUS 153

### MUS 161 PERFORMANCE APLD MUSIC I

0 Lecture 2 Lab 1 Credit Hours(s)

This course provides basic instrumental or vocal techniques and beginning literature in a variety of styles from classical to jazz to modern. Performance and applied students are assigned to private instructors by the Music Coordinator.

Note: Students are responsible for additional music lab fees.

### MUS 162 PERFORMANCE APLD MUSIC II

0 Lecture 2 Lab 1 Credit Hours(s)

This course is a continuation of Performance and Applied Music I. It provides instrumental or vocal techniques and beginning to intermediate level literature in a variety of styles from classical to jazz to modern. Performance and applied students are assigned to private instructors by the Music Coordinator.

Note: Students are responsible for additional music lab fees.

Pre- or co-requisite: MUS 161

### MUS 201 HISTORY OF MUSIC I

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed for musicians and requires prior knowledge of music. Students study the place of music in Western civilization, through representative works of each period. It entails a comprehensive, chronological study of the periods and schools of vocal and instrumental music, sacred and secular, and a study of the beginnings of Western music thought in ancient Greece to the end of the Baroque era in 1750.

Pre-requisite: None.

### MUS 202 HISTORY OF MUSIC AFTER 1750

3 Lecture 0 Lab 3 Credit Hours(s)

A continuation of MUS 201, this course covers music history from 1750 to the present. Developments, trends, and styles in instrumental and vocal genres of representative composers of the classic, romantic, impressionist, and modern periods are studied and compared.

Prerequisite: MUS201

### MUS 205 VOCAL REPERTOIRE I

0 Lecture 2 Lab 1 Credit Hours(s)

This course helps students enhance their vocal skills through the performance of solo works with live accompaniment in their area of musical interest (classical, musical theater, popular styles, etc.). Students also receive practice in articulating effective critiques as well as discussion of vocal health, anatomy, movement for the stage, use of the International Phonetic Alphabet (IPA), and audition techniques presented in mini-workshops.

### MUS 206 VOCAL REPERTOIRE II

0 Lecture 2 Lab 1 Credit Hours(s)

This course is a continuation of Vocal Repertoire I and helps students enhance their vocal skills through the performance of solo works with live accompaniment in their area of musical interest (classical, musical theater, popular styles, etc.). Students also receive practice in articulating effective critiques as well as discussion of vocal health, anatomy, movement for the stage, use of the International Phonetic Alphabet (IPA), and audition techniques presented in mini-workshops.

Prerequisite: MUS 205

### MUS 210 ADVANCED MUSIC PERFORMANCE I

0 Lecture 6 Lab 3 Credit Hours(s)

This course provides students with individual instrumental or vocal music lessons in a variety of styles from classical to jazz to modern. Students receive weekly 90 minute lessons, and perform a jury at the end of the semester. Students pay an additional private lesson course fee and must attend a one-time meeting the first Friday of the semester with the Music Coordinator who assigns them a teacher; after which they schedule their weekly lessons based on a time that fits both student and instructor schedules.

Pre-requisites and/or co-requisites: None.

### MUS 211 ADVANCED MUSIC PERFORMANCE II

0 Lecture 6 Lab 3 Credit Hours(s)

This course provides students with individual instrumental or vocal music lessons in a variety of styles from classical to jazz to modern. Students receive weekly 90 minute lessons, and perform a jury at the end of the semester. Students pay an additional private lesson course fee and must attend a one-time meeting the first Friday of the semester with the Music Coordinator who assigns them a teacher; after which they schedule their weekly lessons based on a time that fits both student and instructor schedules.

Pre-requisites and/or co-requisites: None.

### MUS 212 HISTORY OF AMER MUSICAL THEATRE

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed for both musicians and non-musicians. The purpose of this course is to explore the origins and development of American Musical Theatre from the early Twentieth Century through the modern day, with particular regard to how social and cultural events in our nation's history have been reflected within this indigenous art form. Students will also be responsible for obtaining theatre tickets for their chosen performance reviews at their own expense.

### MUS 219 ELECTRONIC MUSIC WORKSHOP

2 Lecture 2 Lab 3 Credit Hours(s)

Basic techniques of creating electronic music will be explored beginning with simple techno and techno-ambient loops gradually moving into the more experimental and complex structures of avant-garde electro-acoustic music. A basic music course or some basic knowledge of the notes on a keyboard and ability to play an instrument is helpful. More serious music study is useful but not required. Students unsure of their background should seek permission of the instructor.

#### MUS 221 CHORUS III

0 Lecture 2 Lab 1 Credit Hours(s)

The purpose of this course is to improve the student's ensemble singing through the study and performance of choral music in a variety of musical styles. The course includes at least one public concert providing students an opportunity to perform mastered repertoire.

Prerequisites: MUS 122

#### MUS 222 CHORUS IV

0 Lecture 2 Lab 1 Credit Hours(s)

The purpose of this course is to improve the student's ensemble singing through the study and performance of choral music in a variety of musical styles. The course includes at least one public concert providing students an opportunity to perform mastered repertoire.

Prerequisite: MUS 221

#### MUS 231 JAZZ ENSEMBLE III

0 Lecture 2 Lab 1 Credit Hours(s)

Students rehearse and perform jazz ensemble music. The course is open to students playing saxophone, trumpet, trombone, piano, guitar, bass, drums, or percussion. There is one on-campus concert, and additional performances may be required. Students are expected to supply their own instruments in working condition. Concurrent enrollment in MUS 135: Jazz: Its History and Influence is recommended.

Prerequisite: MUS 132

#### MUS 232 JAZZ ENSEMBLE IV

0 Lecture 2 Lab 1 Credit Hours(s)

Students rehearse and perform jazz ensemble music. The course is open to students playing saxophone, trumpet, trombone, piano, guitar, bass, drums, or percussion. There is one on-campus concert, and additional performances may be required. Students are expected to supply their own instruments in working condition. Concurrent enrollment in MUS 135: Jazz: Its History and Influence is recommended.

Prerequisite: MUS 231

#### MUS 236 ORCHESTRA III

0 Lecture 2 Lab 1 Credit Hours(s)

Students rehearse and perform orchestral music. The course is open to students playing flute, oboe, clarinet, bassoon, horn, trumpet, trombone, tuba, violin, viola, cello, double bass, or percussion at a level NYSSMA 4 or higher. There is one on-campus concert, and two additional public concerts in the community. Students are expected to supply their own instruments in working condition.

Prerequisite: MUS 137

#### MUS 237 ORCHESTRA IV

0 Lecture 2 Lab 1 Credit Hours(s)

Students rehearse and perform orchestral music. The course is open to students playing flute, oboe, clarinet, bassoon, horn, trumpet, trombone, tuba, violin, viola, cello, double bass, or percussion at a level NYSSMA 4 or higher. There is one on-campus concert, and two additional public concerts in the community. Students are expected to supply their own instruments in working condition.

Prerequisite: MUS 236

#### MUS 241 PIANO III

0 Lecture 2 Lab 1 Credit Hours(s)

This course provides students with individual piano lessons in a variety of styles from classical to jazz to modern. Students receive weekly 30 minute lessons, perform for a jury at the end of the semester, and must pay an additional private lesson course fee. Students must attend a one-time meeting the first Friday of the semester with the Music Coordinator, after which they schedule their weekly lessons based on a time that fits both student and instructor schedules.

Prerequisite or Corequisite: MUS142

#### MUS 242 PIANO IV

0 Lecture 2 Lab 1 Credit Hours(s)

This course provides students with individual piano lessons in a variety of styles from classical to jazz to modern. Students receive weekly 30 minute lessons, perform for a jury at the end of the semester, and must pay an additional private lesson course fee. Students must attend a one-time meeting the first Friday of the semester with the Music Coordinator, after which they schedule their weekly lessons based on a time that fits both student and instructor schedules.

Prerequisite or Corequisite: MUS 241

#### MUS 243 GUITAR ENSEMBLE III

0 Lecture 2 Lab 1 Credit Hours(s)

Students rehearse and perform guitar ensemble music. The course is open to students who play acoustic guitar. There is one on-campus concert, and additional

performances may be required. Students are expected to supply their own instruments in working condition.

Prerequisite: MUS 144

#### MUS 244 GUITAR ENSEMBLE IV

0 Lecture 2 Lab 1 Credit Hours(s)

Students rehearse and perform guitar ensemble music. The course is open to students who play acoustic guitar. There is one on-campus concert, and additional performances may be required. Students are expected to supply their own instruments in working condition.

Prerequisite: MUS 243

#### MUS 253 SHOW CHOIR III

0 Lecture 2 Lab 1 Credit Hours(s)

A musical theatre course, this class rehearses and performs Broadway and pop songs in a choir setting, with ample opportunity for solos, dance and choreography. In addition to on-campus performances, members must be able to coordinate transportation to multiple off-campus performances.

Prerequisite: MUS 154

#### MUS 254 SHOW CHOIR IV

0 Lecture 2 Lab 1 Credit Hours(s)

A musical theatre course, this class rehearses and performs Broadway and pop songs in a choir setting, with ample opportunity for solos, dance and choreography. In addition to on-campus performances, members must be able to coordinate transportation to multiple off-campus performances.

Prerequisite: MUS 253

#### MUS 261 PERFORMANCE APLD MUSIC III

0 Lecture 2 Lab 1 Credit Hours(s)

This course provides students with individual instrumental or vocal music lessons in a variety of styles from classical to jazz to modern. Students receive weekly 30 minute lessons, perform for a jury at the end of the semester, and must pay an additional private lesson course fee. Students must attend a one-time meeting the first Friday of the semester with the Music Coordinator, after which they schedule their weekly lessons based on a time that fits both student and instructor schedules. Note: Students are responsible for additional music lab fees for MUS 141, 142, 161, 162, 241, 242, 261, and 262.

Pre- or co-requisite: MUS 162

#### MUS 262 PERFORMANCE APLD MUSIC IV

0 Lecture 2 Lab 1 Credit Hours(s)

This course provides students with individual instrumental or vocal music lessons in a variety of styles from classical to jazz to modern. Students receive weekly 30 minute lessons, perform for a jury at the end of the semester, and must pay an additional private lesson course fee. Students must attend a one-time meeting the first Friday of

the semester with the Music Coordinator, after which they schedule their weekly lessons based on a time that fits both student and instructor schedules. Note: Students are responsible for additional music lab fees for MUS 141, 142, 161, 162, 241, 242, 261, and 262.

Pre- or co-requisite: MUS 261

#### MUS 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of music or other related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### MUS 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to MUS 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### MUS 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to MUS 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### NURSING

#### NUR 090 NYS LPN TO RN TRANSITION CRSE

3 Lecture 0 Lab 3 Credit Hours(s)

The New York State LPN to RN Transition course is designed to validate prior learning, and update/enhance the student's knowledge. This course facilitates transition from the role of Practical Nurse to that of a student preparing for the role of Registered Nurse. Emphasis is placed on the National League for Nursing (NLN) core competencies related to human flourishing, nursing judgment, professional identity and spirit of inquiry. Completion of this course does not imply acceptance into the DCC nursing program.

This course may not be repeated.

Prerequisites and/or corequisites: Requirements for enrollment include eligibility for licensure as a licensed practical nurse in a United States Jurisdiction.

Students wishing to enter the DCC nursing program must follow the matriculation and prerequisite requirements for the LPN to RN program as outlined in the Guide for Pre-Nursing students. Permission of the Registrar Counselor is required to take this course.

Note: NUR090 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not

calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.

#### NUR 100 NURSING INTRODUCTORY SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

Students newly matriculated into the Nursing Program register for this seminar course to learn about the profession of nursing, the nursing curriculum and the college environment. Additional content discusses time management, learning styles and the advancement of nursing education.

#### NUR 105 NURSING SCIENCE I

3 Lecture 8 Lab 6 Credit Hours(s)

This clinical course correlates with the foundation of nursing practice. Assessment of basic needs across the life span is a major focus. Psychomotor skills basic to the practice of professional nursing are practiced in weekly two-hour college laboratory sessions. In addition, a weekly six-hour clinical experience occurs in long-term care facilities with a focus on aging populations.

A minimum grade of C is required to advance to NUR 112. A student may attempt the course two times depending on the re-entry rubric score.

Pre-requisites and/or co-requisites: Satisfactory score on math placement test or passing grade in CSM 093 or college-level math course; eligibility to enroll in ENG 101 as determined by placement testing results; C grade or better in BIO 131 or concurrent enrollment. Co-requisite NUR 107.

#### NUR 107 SURVEY OF PROFESSIONAL NURSING

1 Lecture 0 Lab 1 Credit Hours(s)

The student explores issues and aspects of the profession of nursing: historical overview of modern nursing, professionalization of the student nurse, overview of the contemporary health care delivery system, ethical and legal issues of professional nursing practice, values clarification and nursing judgment.

A minimal grade of C is required to advance to NUR 112. A student may attempt the course two times. Co-requisite: NUR 105.

#### NUR 111 COMPUTERS IN NURSING

2 Lecture 2 Lab 3 Credit Hours(s)

Offered online, this course is an introduction to the concepts relevant to the use of information technology in the health care delivery system. It explores application of computer systems as a tool for problem solving, decision-making and information management as it relates to nursing services. A student may attempt the course two times.

#### NUR 112 NURSING SCIENCE II

5 Lecture 8 Lab 8 Credit Hours(s)

Students focus on providing safe and evidence-based care to patients requiring surgery. In this clinical course the utilization of nursing judgment promotes adaptation of pathophysiologic aspects specific to adults and children experiencing accidental trauma, surgical interventions, burns, musculoskeletal trauma, gynecological, biliary and eye diseases. Complex psychomotor skills for the practice of professional nursing are included in the two-hour weekly college laboratory. Students care for patients in a variety of settings during the weekly six-hour clinical. This course may not be repeated.

Prerequisite: C grade or better in BIO 131; C or better in NUR 105 and NUR 107; Concurrent enrollment in BIO 132. A minimal grade of C is required to continue to NUR 213 and NUR 215.

#### NUR 120 LPN TO RN BRIDGE

2 Lecture 0 Lab 2 Credit Hours(s)

The course prepares the LPN student for the DCC nursing curriculum and entry into NUR 213 or NUR 215. The course emphasizes the development of nursing judgment and uses the organizing framework of the nursing program as the basis for providing care for patients with medical-surgical diagnoses. A minimal grade of C is required to continue to NUR 213 or NUR 215. The course may not be repeated.

Pre-requisites and/or co-requisites: Satisfactory completion of the New York State Coalition LPN to RN Transition Course. C grade or better in BIO 131; concurrent enrollment in NUR 120 and BIO 132. Students must follow the prerequisite requirements for the LPN to RN program as outlined in the Guide for Pre-Nursing students. Permission of the Registrar Counselor is required to take this course.

#### NUR 204 PROFESSIONAL ISSUES IN NURSING

1 Lecture 0 Lab 1 Credit Hours(s)

Issues relevant to the professional role of the associate degree nurse are presented. An overview of the Nurse Practice Act prepares the student to understand the legal scope of contemporary nursing. Students are guided in applying for the RN licensure examination. A grade of C or better is required to complete this course. This course may not be repeated.

Prerequisites: C grade or better in NUR 213, NUR 215.

#### NUR 213 NURSING SCIENCE III

5 Lecture 8 Lab 8 Credit Hours(s)

This clinical course focuses on the use of nursing judgment to promote safe, evidenced-based care to adults and children experiencing complex respiratory, digestive, cardiovascular, oncologic, urinary, hepatic disorders, and infectious processes. Complex cognitive

and psychomotor skills, necessary for the practice of professional nursing, are included in the two-hour weekly college laboratory. Students care for patients in a variety of settings in weekly six-hour clinical experiences. A grade of C or better is required to progress to NUR 216. This course may not be repeated.

Prerequisites: C grade or better in BIO 132 and C or better in NUR 112; concurrent enrollment in BIO 212 and NUR 215.

#### NUR 215 PARENT-CHILD NURSING

2 Lecture 3 Lab 3 Credit Hours(s)

Parent-child nursing is the study of nursing care related to the prenatal, intrapartal and postpartal periods of the woman and her family. The focus of the course is the use of clinical judgment to provide safe, evidence-based care. Reproductive issues and selected abnormal conditions during pregnancy and child birth are included. Common congenital/genetic conditions and childhood diseases are also discussed. Students care for patients in a variety of settings during the weekly six-hour clinical. The sites for these experiences are discussed in the first class meeting. A grade of C or better is required to progress to NUR 216. This course may not be repeated.

Prerequisites: C grade or better in BIO 132 and NUR 112 or NUR 120; concurrent enrollment in BIO 212 and NUR 213.

#### NUR 216 NURSING SCIENCE IV

3 Lecture 4 Lab 4 Credit Hours(s)

Nursing care of patients with psychiatric and neurological dysfunction is explored in this clinical course. Students care for patients in a variety of settings. Weekly six-hour clinical experiences are divided into five weeks of neurological and five weeks of psychiatric nursing. This course may not be repeated.

Prerequisites: C grade or better in BIO 212; C grade or better in NUR 213, NUR 215.

#### NUR 218 NURSING SYNTHESIS

1 Lecture 5 Lab 2 Credit Hours(s)

The nursing program is capped by this preceptorship course which focuses on the transition of the student nurse to the role of the professional nurse. The content emphasizes the synthesis of the knowledge, skills, attitudes and competencies as defined by the National League of Nursing. Students precept with professional nurses in a variety of settings for two clinical eight-hour days for five weeks.

A grade of C or better in NUR 218 is required to complete the nursing sequence. This course may not be repeated.

Prerequisite: C grade or better in NUR 216.

#### NUR 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of nursing or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### NUR 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to NUR 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### NUR 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to NUR 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### PARALEGAL

#### PAL 100 PARALEGAL INTRODUCTORY SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

This course is designed to provide paralegal students with an opportunity to learn and practice strategies essential for successful completion of their educational program. Such strategies are often also of value in the paralegal profession. Focus will be on familiarity with college and paralegal resources, knowledge of college policies and procedures, effective paralegal curriculum management, and development of academic and professional success skills. In addition, the course will discuss the requirements of becoming a New York notary public and the functions that a notary will commonly perform.

#### PAL 110 FUNDAMENTALS OF PARALEGALISM

3 Lecture 0 Lab 3 Credit Hours(s)

This course will provide students with an overview of the role of paralegals in the legal system. Topics to be examined include: employment specialties, professional development, law office operations, client relations, legal interviewing and professional ethics. Upon completion of this course, students should be better able to determine if they wish to continue their education in the paralegal field.

#### PAL 120 LEGAL RESEARCH

3 Lecture 0 Lab 3 Credit Hours(s)

An introduction to legal research sources and methods, and the drafting of legal memoranda based upon such research. Students will be trained to effectively

and efficiently find legal principles and authorities from primary and secondary sources of law using both text and computerized resources. Both Federal and New York State applications will be addressed.

#### **PAL 210 FAMILY LAW**

3 Lecture 0 Lab 3 Credit Hours(s)

A study of the law of domestic relations of New York, focusing on the substantive law of marriage, separation, divorce, annulment and family obligations. Attention is also given to procedural laws concerning Family Court proceedings and the drafting of documents related to family law practice.

Prerequisites: PAL 110 and PAL 120.

#### **PAL 220 WILLS, TRUSTS, AND ESTATES**

3 Lecture 0 Lab 3 Credit Hours(s)

This course is a study of the legal aspects of preparing valid wills and probating the deceased's estate. In addition, procedures of estate administration without a will, estate settlement, discharge of fiduciary duties, taxation, trust creation and administration will be addressed. The function of the paralegal in this area of law will serve as the basis for topic coverage.

Prerequisites: PAL 110 and PAL 120.

#### **PAL 230 LAW OF BUSINESS ORGANIZATIONS**

3 Lecture 0 Lab 3 Credit Hours(s)

A study of sole proprietorships, partnerships, limited liability companies and corporations, focusing on the applicable legal principles and preparation of documents relating to the organization and operation of each. The function of the paralegal in this area of law will serve as the basis for topic coverage.

Prerequisites: PAL 110 and PAL 120.

#### **PAL 240 CIVIL LITIGATION**

3 Lecture 0 Lab 3 Credit Hours(s)

This course focuses on fundamental principles and procedures of the civil litigation process. Upon completion, students will be familiar with the pretrial, trial and post-trial stages of litigation, including rules of procedure and the paralegal's role in case preparation, discovery and the drafting of pleadings, motions and other documents.

Prerequisites: PAL 110 and PAL 120.

#### **PAL 250 REAL PROPERTY LAW**

3 Lecture 0 Lab 3 Credit Hours(s)

This course focuses on the law of real estate with an in-depth survey of the common types of property ownership and conveyances. Relevant documents, including contracts of sale, mortgages, deeds and leases are examined. The role of the paralegal in helping to facilitate various real estate transactions is stressed.

Prerequisites: PAL 110 and PAL 120.

#### **PAL 260 LEGAL WRITING**

3 Lecture 0 Lab 3 Credit Hours(s)

Students will further develop and practice legal research, analysis, and writing skills through analysis of hypothetical situations and preparation of relevant legal documents, such as correspondence, court forms, and legal memoranda.

Prerequisites: PAL 120 and ENG 101

#### **PAL 271 SPECIAL STUDY PROJECT I**

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of paralegal or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### **PAL 272 SPECIAL STUDY PROJECT II**

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to PAL 271 except that the student's time commitment to the project will be approximately 70-90 hours.

#### **PAL 273 SPECIAL STUDY PROJECT III**

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to PAL 271 except that the student's time commitment to the project will be approximately 105-135 hours.

#### **PAL 290 PARALEGAL INTERNSHIP**

1 Lecture 8 Lab 3 Credit Hours(s)

This non-required course provides paralegal students with an opportunity to gain work experience in a law office or other related legal work environment. Course requirements include a minimum of 120 hours during the semester in a supervised setting requiring the completion of a variety of activities assigned to a paralegal. The course also requires participation in regularly scheduled seminars with the instructor and the completion of regular internship reports.

Prerequisites: Matriculation in the Paralegal AAS Degree program, PAL 100, PAL 110, PAL 120, 9 credit hours of other PAL courses, and permission of department.

### **PARAMEDIC**

#### **PAR 100 PARAMEDIC INTRODUCTORY SEMINAR**

1 Lecture 1 Lab 1 Credit Hours(s)

This course is designed to introduce the paramedic student to the EMT-Paramedic Curriculum. Topics include: Orientation to the Curriculum, College Survival Skills, Roles and Responsibilities of the Paramedic, Medical/

Legal issues, The Well Being of the Paramedic, Illness and Injury, Ethics, and Therapeutic Communications. The laboratory section allows for hands-on supervised practice of the topics covered. Pre-requisite: Current NYS EMT Certification highly recommended.

#### PAR 101 ADVANCED AIRWAY MANAGEMENT

0 Lecture 2 Lab 1 Credit Hours(s)

This lab course is designed to review basic life support airway assessment and management techniques, and develop mastery in the ability to establish and maintain a patient airway, deliver oxygen and ventilate a patient at an advanced level. The focus of this course is on the complex cognitive and psychomotor skills necessary for assessing and treating airway compromise. Student will be introduced to out of hospital pharmacological intervention and surgical airway access in the critical patient.

Prerequisite: Current NYS EMT certification, EMB 101, and BIO 115 with a grade of "C" or better.

#### PAR 102 PATHOPHYS & LIFE SPAN DEV

3 Lecture 0 Lab 3 Credit Hours(s)

This is an introductory course in pathophysiology as it relates to out of hospital medicine. This course focuses on human responses to illness expressed at the physiologic, pathophysiologic, experiential and behavioral levels. Human responses are examined in terms of assessments appropriate to selected problems, rationale for paramedic and medical interventions, and therapeutic effectiveness. Topics include: General Principles of Pathophysiology and Life Span Development.

Prerequisite: Current NYS EMT Certification and BIO 115 with a grade of C or better.

#### PAR 106 PHARMACOLOGY

2 Lecture 2 Lab 3 Credit Hours(s)

This course is designed to introduce the paramedic student to the categories of pharmacological agents and the application of pharmacological concepts to clinical paramedic practice. Emphasis will be placed on understanding physiological drug actions. Topics include pharmacology, intravenous therapy and medication administration. The lab section covers psychomotor skills of medication administration, blood drawing and intravenous therapy. Skills include phlebotomy, intramuscular and subcutaneous injections, intravenous cannulation, intravenous drug administration, inhalation administration, and sublingual drug administration.

Pre-Requisites: Current NYS EMT Certification, EMB 101 with a grade of "C" or better.

Co-Requisites: PAR 101

#### PAR 107 EMS OPERATIONS

2 Lecture 0 Lab 2 Credit Hours(s)

This course is designed to expose the paramedic student to various field operations procedures. Topics include: medical incident command, rescue awareness and operations, hazardous materials awareness and operations, crime scene awareness.

Pre-requisites: Current NYS EMT Certification.

#### PAR 120 CLINICAL I

0 Lecture 8 Lab 2 Credit Hours(s)

This clinical course is designed to accompany the Pathophysiology and Pharmacology and Advanced Airway Courses. Clinical rotations focus on the development of triage skills, recognition of disease pathology and progression, intravenous therapy, blood drawing and medication administration skills.

Pre-Requisites: Current NYS EMT Certification and EMB 101 with a grade of C or better. Pre- or Co-Requisite: PAR 106 with a grade of C or better.

#### PAR 201 TRAUMA

2 Lecture 2 Lab 3 Credit Hours(s)

This course introduces the paramedic student to specific pathophysiology, assessment and management techniques for trauma patients. Topics include mechanism of injury, hemorrhage and shock, soft tissue trauma, burns, head and facial trauma, spinal trauma, thoracic trauma, abdominal trauma, musculoskeletal trauma and special considerations. The lab section teaches psychomotor skills of the management of the trauma patient. Skills include, trauma patient assessment, airway management of the trauma patient.

Prerequisite: PAR101, PAR102, and PAR106 with a grade of C or better.

#### PAR 203 CARDIOLOGY AND PULMONOLOGY

3 Lecture 2 Lab 4 Credit Hours(s)

This course covers the specific pathophysiology, assessment and management of the respiratory and cardiac systems. Psychomotor skills included are cardiac monitoring, defibrillation, cardioversion, transthoracic pacing, cardiac emergency management and cardiac arrest management.

Prerequisite: PAR 101, PAR 102, and PAR 106 all with a grade of C or better. Co-requisites: PAR 201 and PAR 205.

#### PAR 205 MEDICAL EMERGENCIES I

4 Lecture 0 Lab 4 Credit Hours(s)

This course covers specific pathophysiology, assessment, and management techniques for common medical conditions encountered in the field. Topics include: Neurology, gastroenterology, urology, endocrinology, toxicology, allergies and anaphylaxis, hematology, infectious and communicable diseases. Special patient populations and circumstances are also addressed; acute interventions in the home care patient, abuse and assault,



behavioral and psychiatric disorders, environmental conditions, and the challenged patient.  
Pre-Requisites: PAR 102, PAR 106 both with a grade of "C" or better.

#### PAR 206 PATIENT ASSESSMENT

2 Lecture 2 Lab 3 Credit Hours(s)

This course is designed to integrate the technique of patient assessment from initial assessment of the patient through treatment modalities. Topics include: History taking techniques of physical examination, scene size-up, initial assessment history and physical exam on-going assessment, communications, and documentation. The lab section teaches psychomotor skills of patient assessment, advanced airway, management of ventilation.

Pre-Requisites: PAR 201, PAR 203, PAR 205 all with a grade of "C" or better.

Pre-/Co-Requisite: PAR 209

Co-Requisite: PAR 240

#### PAR 209 MEDICAL EMERGENCIES II

2 Lecture 2 Lab 3 Credit Hours(s)

This course focuses on the pathophysiology, assessment techniques and treatment modalities for illness and injury in the area of gynecology, obstetrics, neonates, pediatrics and geriatrics. Complex cognitive theory and psychomotor skills that are necessary for the practice of professional out of hospital emergency care are covered in the lecture and lab component of this course.

Pre-/Co-Requisites: PAR 205 with a grade of C or better.

Co-Requisite: PAR 230

#### PAR 220 CLINICAL II

0 Lecture 8 Lab 2 Credit Hours(s)

This clinical course is designed to follow the Advanced Airway Management course (PAR 101) and accompany the Cardiology and Respiratory (PAR 203), Trauma (PAR 201), and Medical Emergencies I (PAR 205) courses. Clinical rotations focus on the development of psychomotor skills and integrative skills.

Pre-Requisites: PAR 120 with a grade of  $\frac{2}{3}$ C $\frac{2}{3}$  or better.

Co-Requisites: PAR 201, PAR 203, PAR 205.

#### PAR 230 CLINICAL III

0 Lecture 8 Lab 2 Credit Hours(s)

This clinical course is designed to accompany or follow the Medical Emergencies II course. Clinical rotations focus on treatment of special patient populations and special clinical situations and reinforcement of previous clinical lessons learned.

Pre-/Co-requisite: PAR 203 and PAR 220 with a grade C or better in each.

Co-requisite: PAR 209.

#### PAR 240 SUMMATIVE EVALUATION

0 Lecture 16 Lab 4 Credit Hours(s)

This summative field evaluation determines if the student is competent to serve as an entry-level clinician. Field rotations place the student in the role of team leader for all calls and expect them to integrate history taking, physical exam and cognitive knowledge into the total management of the patient. Comprehensive examinations evaluate the candidate's knowledge base and psychomotor skills.

Pre-/Co-requisite: PAR 230.

Co-requisite: PAR 206.

\* In addition, students must secure approval of the Medical Director, Paramedic Program Coordinator and Clinical Coordinator to take this class.

#### PAR 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience or other activities that advance the student's knowledge and competence in the field of paramedic or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### PAR 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to PAR 271 except that the student's time commitment to the project will be approximately 70-90 hours.

#### PAR 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to PAR 271 except that the student's time commitment to the project will be approximately 105-135 hours.

### PHLEBOTOMY

#### PDC 101 BASIC CONCEPTS OF PHLEBOTOMY

3 Lecture 2 Lab 4 Credit Hours(s)

A study of the basic concepts of phlebotomy and of the responsibilities of the phlebotomist. The course will cover such topics as job responsibilities, organizational structure of a laboratory, basic understanding of major body systems, collection equipment, blood collection procedures, infection control, safety, specimen transport and processing, quality control and professionalism.

#### PDC 102 PHLEBOTOMY INTERNSHIP

2 Lecture 8 Lab 4 Credit Hours(s)

Clinical internship in a health care institution where knowledge and skills and actual job performance are integrated in a clinical program.

Prerequisite: PDC 101 with a grade of C or better.

#### PDC 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of phlebotomy or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### PDC 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to PDC 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### PDC 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to PDC 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### PHYSICAL EDUCATION

#### PED 101 SELF-DEFENSE

0 Lecture 2 Lab 1 Credit Hours(s)

Practical self-defense training offers students an opportunity to learn methods of protection from assault and, where necessary, how to control an attacker. Participants will be taught the practical aspect of self-defense and how to relate their training to an actual attack.

#### PED 106 INTRO TO WEIGHT TRAINING

0 Lecture 2 Lab 1 Credit Hours(s)

This course is for men and women. It is designed to give the student fundamental skills of weight training. Emphasis is placed on proper form and technique using a variety of strength training equipment. Exercise using aerobic equipment will also be introduced.

#### PED 111 STEP AEROBICS

0 Lecture 2 Lab 1 Credit Hours(s)

Step aerobics is a popular form of aerobic exercise that makes use of the step prop to condition cardiovascular and musculoskeletal systems. Basic stepping routines are choreographed to music following safe cadence and movement guidelines. Students of all fitness levels can achieve an efficient and enjoyable aerobic workout.

#### PED 113 INTRODUCTION TO MARTIAL ARTS

0 Lecture 2 Lab 1 Credit Hours(s)

This course will introduce to the student the Korean Martial Art of Tae Kwon Do. Students will learn blocks, kicks, fist techniques, combination moves, and human anatomy that will assist in self defense, build stamina, instill confidence and help in decision making. Primarily for beginners, this course can act as a refresher to experienced martial artists, also. Historical guidelines will be included.

#### PED 114 STRETCH AND STRENGTHEN

0 Lecture 2 Lab 1 Credit Hours(s)

Stretch and Strengthen is a physical fitness course designed to develop muscular endurance and flexibility. Weights and other types of resistive equipment are used to develop fitness. An emphasis is also placed on the use of stretch and relaxation techniques in the management of stress.

#### PED 115 PILATES BASICS

0 Lecture 2 Lab 1 Credit Hours(s)

Through lecture, demonstration and actual practice, students will learn basic Pilates movement principles and concepts, the importance of functional strength and flexibility, anatomy and kinesiology and breathing technique. Basic Pilates mat work will be supplemented by the use of additional equipment to enhance the development of balance, skill and core strength.

#### PED 116 YOGA

0 Lecture 2 Lab 1 Credit Hours(s)

Yoga is an applied science of the mind and body. The primary emphasis of the course will be on general well-being. Students will be exposed to various forms of yoga and will learn gentle stretches, postures designed to keep the body fit, spiritual philosophy, breathing practices, relaxation and meditation.

#### PED 117 WALKING FOR FITNESS

0 Lecture 2 Lab 1 Credit Hours(s)

Walking is a popular exercise activity that can accommodate a variety of fitness levels. Students will learn about fitness walking as a means of improving health and cardiorespiratory endurance. Proper walking technique as well as race walking and interval programs are incorporated to provide a comprehensive overview of various walking program modalities. Field trips will be incorporated as a means of exploring various walking trails within the Hudson Valley.

#### PED 118 INTRO TO ROCK CLIMBING

0 Lecture 2 Lab 1 Credit Hours(s)

This course covers the basic essentials of indoor rock climbing. Students will learn to be self-sufficient, capable, and safe indoor climbers. Students will be assessed on their knowledge of belay technique, climbing technique,

familiarity with climbing-specific knots, and climbing terms.

Prerequisite: Students must possess an adequate level of physical fitness, which can be indicated by the ability to walk up two flights of stairs without discomfort.

#### PED 120 BADMINTON I

0 Lecture 2 Lab 1 Credit Hours(s)

This course is designed to improve basic badminton skills including clear, drive, drop shot, smash and various serves and returns of serves, and to increase the knowledge and ability of how to effectively implement these skills in singles and doubles play.

#### PED 127 BASEBALL

0 Lecture 2 Lab 1 Credit Hours(s)

Baseball emphasizes skills of batting, throwing, defensive and offensive strategies, fielding and the use of signals. A viewing appreciation for the national pastime and how to keep score are important aspects of this activity.

#### PED 130 BOWLING

0 Lecture 2 Lab 1 Credit Hours(s)

This course is designed to introduce students to the game of bowling for recreation, leisure and competition. Necessary fundamentals for building skill foundations are an integral part of this course. The mathematics of bowling are discussed, and the social, physical, mental and recreational values are included.

#### PED 131 GOLF

0 Lecture 2 Lab 1 Credit Hours(s)

Theory and philosophy of the game. This includes techniques of the golf swing, the construction of equipment, grip, stance and address. Rules, etiquette and scoring are covered.

#### PED 134 PRINCIPLES OF ATHLETICS IN EDU

3 Lecture 0 Lab 3 Credit Hours(s)

Principles, Philosophy, and Organization of Athletics in Education is the foundation course that must be completed by ALL coaches within two years of their initial appointment as a coach. The course covers basic philosophy and principles as integral parts of physical education, athletics and general education; State, local and national regulations and policies related to athletics; legal considerations; function and organization of leagues and athletic associations in New York State; personal standards for the responsibilities of the coach as an educational leader; public relations; general safety procedures; general principles of school budgets, records, purchasing and use of facilities.

#### PED 135 HLTH SCI APP TO COACHING

3 Lecture 0 Lab 3 Credit Hours(s)

This course is a series of interactive exercises and activities designed to study Health Sciences as they apply to coaching sports. Through these activities, exercises and health application to coaching topics, participants will gain information, organize it for professional and personal use, and apply it to their particular programs. Health Sciences as applied to coaching will also help define: selected principles of biology, anatomy, physiology, kinesiology related to coaching; risk minimization; mixed competition; NYSED selection and classification of athletes; age and maturity of athletes. Prerequisite: PED134.

#### PED 136 THEORY & TECHNIQUES COACHING

2 Lecture 0 Lab 2 Credit Hours(s)

This course will begin with an introductory phase in which the basic concepts common to all sports will be discussed. Topics will include a history of interscholastic athletics in New York State. The objectives, rules, regulations and policies of athletics, as well as performance skills, technical information, and organization and management practices will also be among the topics covered. The special training and conditioning of the athletes in specific sports, the fitting of equipment, specific safety precautions and officiating methods will also be examined. An internship that will include practical experience as a coach in the specific sport and/or periods of observing other approved coaches will also be required.

Prerequisites: PED134 and PED135.

#### PED 145 CARDIO CONDITIONING

0 Lecture 2 Lab 1 Credit Hours(s)

This course utilizes a varied aerobic workout that provides effective conditioning of the muscles, heart, lungs and blood vessels so that the body is strengthened through healthy use. The class offers options for low and high intensity, incorporating sports moves, interval and circuit training, and dance. A segment on muscle endurance and flexibility is also included. The exercise program provides an enjoyable way to work towards a lifetime of physical fitness.

#### PED 197 FENCING

0 Lecture 2 Lab 1 Credit Hours(s)

The historic art of fencing. Offense and defense with the foil, sabre and epee are taught. Romantic air of Cyrano, Zorro and other great duelers lend to the thrill of learning these skills. Competition, scoring and safety are covered.

#### PED 202 FITNESS TRAINING PRACTICUM

2 Lecture 3 Lab 3 Credit Hours(s)

A special learning experience for students interested in a comprehensive study of fitness programming. Under the supervision of a faculty member, students act as trainers in the DCC Fitness Center. Study will include

safe and effective operation of strength and aerobic exercise equipment, fitness training principles, and the development of individual fitness programs. There are three lab hours to be arranged by the student in addition to the two scheduled lecture hours.

#### PED 220 BADMINTON II

0 Lecture 2 Lab 1 Credit Hours(s)

This course builds upon badminton skills learned in the level one class and advances the ability of the player to effectively implement and teach these skills in singles and doubles play.

Pre-requisite: PED 120 - Badminton I

#### PED 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of physical education or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### PED 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to PED 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### PED 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to PED 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### PERFORMING ARTS

#### PFA 100 PERFORMING ARTS INTRO SEMINAR

1 Lecture 0 Lab 1 Credit Hours(s)

This course introduces students to the field of performing arts and helps guide them in making decisions leading to success in performing art studies and to a career in the performing arts. It provides an overview of courses and training needed, preparing for auditions, career opportunities and possible transfer options. In addition, there will be specific units on various study and rehearsal skills, which lead to success in college and in the performing arts.

### PHILOSOPHY

#### PHI 107 INTRO TO THE ART OF REASONING

3 Lecture 0 Lab 3 Credit Hours(s)

This course is concerned with techniques for identifying an argument, its components and suppositions, and for evaluating all these elements. Besides the analysis of arguments, topics will include deductive and inductive forms, rational decision-making and recognition of informal fallacies. Emphasis will be on heightening the student's ability to convey ideas concisely, to formulate arguments clearly and to appraise them critically.

#### PHI 201 PHILOSOPHY:PRIMARY ISSUES

3 Lecture 0 Lab 3 Credit Hours(s)

This course involves a survey of representative problems in some of the major areas of philosophy, and the positions of different schools of philosophic thought on these problems. Topics considered include free will, the problem of religious belief, knowledge and truth, the problem of the self, morality, reality and being, and the problem of the external world.

#### PHI 203 MAJOR RELIGIONS OF THE WORLD

3 Lecture 0 Lab 3 Credit Hours(s)

An exploration of the cultural expressions and spiritual values of the world's great religions. The course aims at extending and deepening the student's awareness of the doctrine, mythology, symbolism and ritual at the heart of each religion. Among those religions studied will be Hinduism, Buddhism, Taoism, Confucianism, Judaism, Christianity and Islam.

#### PHI 205 ETHICAL THEORY AND CONT. ISSUE

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed to introduce students to the study of ethics and the nature of morality. A wide range of ethical issues is considered, including moral relativism, the principle of utility, duty-based ethics and natural law theory. Additionally, the course will focus on problems of applied morality, examining and discussing alternative positions on such issues as abortion, euthanasia, capital punishment, economic justice, etc.

#### PHI 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of philosophy or related areas. The student's time commitment to the project will be approximately 35-50 hours.

#### PHI 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to PHI 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### PHI 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to PHI 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### PHYSICAL SCIENCE

#### PHS 101 THE PHYSICAL WORLD

3 Lecture 2 Lab 4 Credit Hours(s)

An introductory science course designed to introduce the student to the physical principles that govern the operation of machines that they encounter in their everyday lives. Topics include the metric system, simple machines, work, energy, states of matter, fluids, buoyancy, pressure, heat, nuclear energy, waves, light, color, sound, electricity, magnetism and computers. Laboratory experiments illustrate both the concepts studied and the general techniques of structured experimentation.

#### PHS 102 EARTH SCIENCE

3 Lecture 2 Lab 4 Credit Hours(s)

A first course for students interested in planet earth. Topics to be considered include the earth's place in the universe, earth's materials and processes and earth's weather systems. Particular emphasis is placed on the individual's relationship to the planet. Discussions of earth's resources, waste disposal and geologic hazards such as earthquakes will be included. Laboratory work is supplemented by field trips.

#### PHS 103 PHYSICAL SCI & THE ENVIRONMENT

3 Lecture 2 Lab 4 Credit Hours(s)

This course provides a local, regional and global perspective of major environmental issues. Topics such as population growth, food production, energy use, pollution, global warming and other technology are studied at the intro level. Field Labs constitute a major portion of the laboratory work.

#### PHS 107 ENERGY AND THE ENVIRONMENT

3 Lecture 2 Lab 4 Credit Hours(s)

This course examines how man has met his energy needs in the past through the exploitation of the earth's natural resources and what alternative resources we may use in the future. We will examine modern methods of energy production, including exploration, mining, production, refining, distribution and environmental impact. Specific topics will include wood, coal, oil, natural gas, hydroelectric, nuclear fission, nuclear fusion, solar, wind, geothermal, biomass, ocean thermal energy conversion, conservation and environmental pollution.

#### PHS 111 WEATHER AND CLIMATE

3 Lecture 2 Lab 4 Credit Hours(s)

An introductory study of energy, temperature, moisture, precipitation and winds which combine to create our weather. Topics include the causes of the seasons, forms of moisture in the atmosphere, atmospheric stability, cloud development, precipitation processes, pressure differences that create the winds, storm systems, thunderstorms, hurricanes, tornados and the world climate. Labs include reading weather maps, making weather measurements, cloud development, drawing weather maps and climate studies.

#### PHS 112 WATER RESOURCE ISSUES

3 Lecture 2 Lab 4 Credit Hours(s)

Substantial water resources are required by our growing global population. Water is used for drinking, recreation, generating electricity and by industry; it also flushes our toilets and is easily contaminated by landfills, salt and other human sources. Water is also an essential part of natural ecosystems. Students explore these multiple water demands and the challenges created by conflicting resource requirements. Case studies include investigation of the Everglades, the Mississippi River flood in 1993 and the Exxon Valdez oil spill. Labs include field trips and in-class exercises; students are introduced to the water cycle, the basic chemistry and physics of water, and the use of maps in water resource investigations.

#### PHS 114 CULINARY CHEMISTRY

3 Lecture 2 Lab 4 Credit Hours(s)

A study of the application of basic scientific concepts to cooking and food science. Nutritional properties of foods, food preparation, food preservation, and social and economic issues surrounding food will be examined. Scientific topics to be studied include: fundamentals of food chemistry; molecular structure, interactions and reactions; biochemistry; energy content; mixtures and phase changes; application of concepts to common cooking processes and recipes. This course may be used in place of CHE 111 as preparation for CHE 121. A scientific calculator is required.

#### PHS 115 FUNDAMENTALS OF ELECTRICITY

3 Lecture 2 Lab 4 Credit Hours(s)

This course provides a basic understanding of the fundamental principles of electricity including quantities such as voltage, current, resistance, and power. Underlying physical principles, as well as applications, will be emphasized. The course includes a comparison of the characteristics and uses of both dc and ac electricity. Hands-on lab activities involve observations and measurements of electrical quantities, using components such as dc sources, resistors, capacitors, and inductors. Pre-requisite: MAT 091 or MAT092

### PHS 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of the physical sciences or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### PHS 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to PHS 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### PHS 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to PHS 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## PHYSICS

### PHY 121 GENERAL PHYSICS I

3 Lecture 3 Lab 4 Credit Hours(s)

A general college physics course covering principles of mechanics, including kinematics, Newton's laws, conservation of energy and momentum, rotational motion, simple harmonic motion. Three lecture hours plus weekly three-hour laboratory.

Prerequisite: Algebra II/Trig Regents exam with a minimum grade of 65 or MAT 184 or MAT 132 with a grade of C or better.

### PHY 122 GENERAL PHYSICS II

3 Lecture 3 Lab 4 Credit Hours(s)

A continuation of PHY 121, beginning with the study of fluids then moving on to heat, electricity and magnetism, waves and optics, and modern physics. Three lecture hours plus weekly three-hour laboratory.

Prerequisite: PHY 121 or ENT 103 with a grade of C or better.

### PHY 125 CONVERSATIONS-MODERN PHYSICS

1 Lecture 0 Lab 1 Credit Hours(s)

An introductory course of modern physics topics including relativity, wave particle duality, quantization of light and energy, etc. This course is for students who are interested in discussing and learning about these topics and their applications.

Prerequisites: MAT 184 with a grade of C or better and one year of high school physics or PHY 121 with a grade of C or better.

### PHY 151 ENGINEERING PHYSICS I

3 Lecture 3 Lab 4 Credit Hours(s)

This is the first semester of a three-semester sequence. This course gives students who plan to major in either physics or engineering an understanding of physical concepts and their applications through the use of calculus. The laboratory is designed to teach basic experimental techniques and to verify physical concepts. PHY151 is primarily concerned with mechanics, including basic vector operations, kinematics, Newton's Law, work, energy, and conservation laws.

Prerequisites: MAT 221 with a C or better and either PHY121 with a C or better or one year of high school physics with a grade of 75 or better. Concurrent enrollment in MAT 222 strongly recommended.

### PHY 152 ENGINEERING PHYSICS II

3 Lecture 3 Lab 4 Credit Hours(s)

PHY152 is the second semester of physics in the calculus-based physics sequence. This course gives students who plan to major in either physics or engineering a fundamental understanding of electric and magnetic principles with applications to simple circuits.

Prerequisite: PHY 151 with a grade of C or better and MAT 222 with a C or better.

### PHY 251 ENGINEERING PHYSICS III

3 Lecture 3 Lab 4 Credit Hours(s)

This is the third semester of calculus based physics and is required for anyone pursuing a degree in physics or engineering. The major topics studied in this course are fluids, harmonic motion, wave motion, sound, thermodynamics, kinetic theory of gases and optics.

Prerequisites: PHY 152 with a grade of C or better or instructor approval AND MAT 223 with a C or better or concurrent enrollment of MAT 223

### PHY 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of physics or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### PHY 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to PHY 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### PHY 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to PHY 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## PSYCHOLOGY

### PSY 102 INTERVWNG/COUNSELING SKILLS

3 Lecture 0 Lab 3 Credit Hours(s)

A study of basic helping, counseling and crisis intervention skills with an emphasis on facilitating client growth and interpersonal effectiveness.

### PSY 111 PSYCHOLOGICAL PRINCIPLES I

3 Lecture 0 Lab 3 Credit Hours(s)

Emphasis in this course is on the major aspects of human behavior and its adaptation to the environment. Topics include learning, motivation, emotional behavior, maturation, personality, behavior disorders and therapies.

### PSY 112 PSYCHOLOGICAL PRINCIPLES II

3 Lecture 0 Lab 3 Credit Hours(s)

Physiological factors in human behavior are emphasized. Topics include nervous system, perception, sensation, language, thinking and problem solving, creativity, states of consciousness, statistical and scientific methodology.

### PSY 134 GROUP DYNAMICS

3 Lecture 0 Lab 3 Credit Hours(s)

A study of the factors involved in group interaction, including cohesion and conflict, communication systems, role functions within groups, individual sensitivity and self-awareness. The student learns about him or herself by interacting with others in small-groups, analyzing the dynamics of his or her group.

### PSY 201 ABNORMAL PSYCHOLOGY

3 Lecture 0 Lab 3 Credit Hours(s)

Emphasis is on developing a conceptual basis that incorporates the various influencing factors, as well as descriptions and effects of behavioral disorders. The currently used system of classification provides a holistic orientation to the field.

Prerequisite: PSY 111 or permission of department head.

### PSY 202 THERAPEUTIC INTERVENTN SKILLS

3 Lecture 0 Lab 3 Credit Hours(s)

The study of the principles of learning and behavior change and an overview of therapeutic treatment strategies in current use. Practical applications both in various treatment settings and in everyday life are an integral part of this course.

Prerequisite: PSY 111 or permission of department head.

### PSY 203 DEVELOPMENTAL PSYCHOLOGY

3 Lecture 0 Lab 3 Credit Hours(s)

A systematic examination of the patterns of human development from conception through senescence. Typical behavior changes in the principal life stages are examined in depth with emphasis on the use of theories as tools for understanding.

Prerequisite: PSY 111 or permission of department head.

### PSY 204 ADOLESCENT PSYCHOLOGY

3 Lecture 0 Lab 3 Credit Hours(s)

A study of the developmental tasks facing adolescents in contemporary American society. Such issues as personal identity, independence and moral development are considered in relation to sex differences, family structure and factors of social and cultural diversity.

Prerequisite: PSY 111 or permission of department head.

### PSY 206 SOCIAL PSYCHOLOGY

3 Lecture 0 Lab 3 Credit Hours(s)

The scientific study of social influences on human behavior. Course material emphasizes both the interpersonal and experimental perspectives. Topics include: Social influence, attitudes, group behavior, social perception, social cognition, social exchange, interpersonal attraction, etc.

Prerequisite: BHS 103 or PSY 111.

### PSY 207 CREATIVE ARTS THERAPY

3 Lecture 0 Lab 3 Credit Hours(s)

An overview of creative arts as they are utilized in client assessment and treatment as well as applications of these creative arts to student development and self awareness. Pre-requisites: BHS 110, PSY 102, PSY 134, PSY 202, PSY 203, and PSY 235 or PSY 201.

### PSY 209 PSYCHOBIOLOGY

3 Lecture 0 Lab 3 Credit Hours(s)

Psychobiology approaches psychological questions by seeking explanations based upon the biological functions of the organism's nervous system, endocrine glands and genes. Topics include memory, vision and pain.

Prerequisite: PSY 111

### PSY 210 PSYCHOLOGY OF GENDER

3 Lecture 0 Lab 3 Credit Hours(s)

A study of psychological assumptions about the female and male personality and how these hypotheses are being questioned by recent experimental studies. Psycho-social influences on the developing psyche and behavior patterns of women and men will be investigated, as well as sex differences and the interaction of the individual with the environment. Emphasis will focus on attitude formation, gender role learning, self-image, needs, values, fears and aspirations.

Prerequisite: PSY 111 or permission of department head.

### PSY 221 CHILD DEVELOPMENT

3 Lecture 0 Lab 3 Credit Hours(s)

This is a general education course in behavioral sciences, presenting basic theories of child behavior and development (including cognitive development, social development, and physical development) from the prenatal period through middle childhood. The class is designed to present both theoretical and practical aspects of child development from psychological and developmental viewpoints. Developmental psychology is a science with a large and rich research base. Accordingly, the course will use this research to understand development. While each individual has a unique pattern of growth and development, overall, human development is orderly and predictable and therefore capable of being understood through scientific principles and methodology.

Prerequisite: PSY 111 or permission of the department head.

### PSY 231 TOPICS IN PSYCHOLOGY I

1 Lecture 0 Lab 1 Credit Hours(s)

This course is designed to explore a specific topic area in Psychology in greater depth than would occur in an introductory level offering. The topics will vary and may be drawn from any of the various, applied sub-fields of Psychology. The class room instruction will amount to a period of five weeks of the semester, or its equivalent in formal lecture/discussion.

### PSY 232 TOPICS IN PSYCHOLOGY II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to PSY 231, except that the instructional time will take place over a period of ten weeks of the semester, or its equivalent in formal lecture/discussion.

### PSY 233 TOPICS IN PSYCHOLOGY III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to PSY 231, except that the instructional time will take place for the entire 15 weeks of the semester, or its equivalent in formal lecture/discussion.

### PSY 235 PSYCHOLOGY OF EXCEPTIONALITY

3 Lecture 0 Lab 3 Credit Hours(s)

An overview of exceptionality in childhood including both behavior disordered and gifted children with emphasis on characteristics of and ways to interact with each. Other topics include mental retardation, various mental disorders and learning disabilities.

Prerequisite: PSY 111 or permission of the department head.

### PSY 251 TOPICS IN PSYCHOLOGY I

1 Lecture 0 Lab 1 Credit Hours(s)

This course is designed to explore a specific topic area in Psychology in greater depth than would occur in an

introductory level offering. The topics will vary and may be drawn from any of the various, applied sub-fields of Psychology. The class room instruction will amount to a period of five weeks of the semester, or its equivalent in formal lecture/discussion.

### PSY 252 TOPICS IN PSYCHOLOGY II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to PSY 251, except that the instructional time will take place over a period of ten weeks of the semester, or its equivalent in formal lecture/discussion.

### PSY 253 TOPICS IN PSYCHOLOGY III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to PSY 251, except that the instructional time will take place for the entire 15 weeks of the semester, or its equivalent in formal lecture/discussion.

### PSY 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Prior to registration for any special study course, the approval of the Department Head must be obtained. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of psychology or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### PSY 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to PSY 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### PSY 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to PSY 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## READING

### REA 091 STRATEGIES FOR COLLEGE READING

2 Lecture 0 Lab 2 Credit Hours(s)

Integrated language activities are designed to serve as a complementary component of the instruction given in REA 100.

NOTE: REA 091 is a credit equivalent course. Equivalent credits do not satisfy degree requirements and are not calculated in a student's grade point average, but they do incur tuition charges and they do count towards full-time/part-time status.



### REA 100 APPLIED READING STRATEGIES

1 Lecture 0 Lab 1 Credit Hours(s)

A course designed to improve general reading effectiveness and to emphasize the necessary skills for college reading. Topics include: comprehension on literal, inferential and critical levels and improvement of vocabulary through use of contextual clues. Each student must demonstrate application of the three levels of comprehension to a lengthy reading selection (novel).

### REA 103 ACADEMIC READING

3 Lecture 0 Lab 3 Credit Hours(s)

A course designed to improve content area reading and analytical skills necessary in any college discipline (English: 101, 102, 103; Social Sciences: BHS 103, PSY 111; History: HIS 102; Health/Science: BIO 101; Business: BUS 102, CIS 111, etc.). Students master reading strategies using sample materials from content textbooks and relate those techniques to current course work. Other strategies include notetaking, test preparation, memory improvement, vocabulary and concept building. Critical thinking and analytical skills are applied to non-fiction and fiction selections.

### REA 105 EFFECTIVE READING

3 Lecture 0 Lab 3 Credit Hours(s)

A course designed to increase comprehension, analytical skills and reading speed for the average to above average reader. Speed techniques are designed to increase students' ability to read faster and comprehend more effectively. Analytical skills are developed through reading, writing and thinking activities, which are applied to non-fiction and fiction selections including a novel.

### REA 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of reading or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### REA 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to REA 271, except that the student's time commitment to the project will be approximately 70-90 hours.

### REA 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to REA 271, except that the student's time commitment to the project will be approximately 105-135 hours.

## SCIENCE

### SCI 100 SCIENCE INTRODUCTORY SEMINAR

1 Lecture 1 Lab 1 Credit Hours(s)

This course is designed to orient the student to the Liberal Arts and Science: Science (LAX) curriculum and prepare the student for his/her science course work. The student will be introduced to the information gathering process and its tools. The scientific paper and the laboratory report will be stressed. Topics will be selected by section from biology, chemistry, physics, earth science and environmental science.

## SPANISH

### SPA 101 ELEMENTARY SPANISH I

3 Lecture 1 Lab 3 Credit Hours(s)

An introduction to the sounds and grammatical concepts of Spanish. A course intended to be, ideally, the first step in sequence, which will include SPA 101, 102, 201 and 202. An attempt is made to familiarize students in the three language skills: listening comprehension, speaking and writing. An hour a week of supervised computer lab work, which involves working on web based programs that accompany each lesson, is a requirement of the course and will help the student in their comprehension and speaking skills. The course is designed for the beginner - one with no previous study of Spanish.

### SPA 102 ELEMENTARY SPANISH II

3 Lecture 1 Lab 3 Credit Hours(s)

SPA 102 is a continuation of Spanish 101, and thus continues the study of the sounds, structure and grammatical concepts, but with a growing emphasis on conversational ability. It is, ideally, the second step of a sequence which would include Spanish 101, 102, 201 and 202. An attempt is made to familiarize students in the three language skills: listening comprehension, speaking and writing. An hour a week of supervised computer lab work, which involves working on web based programs that accompany each lesson, is a requirement of the course and will help the student in their comprehension and speaking skills. An hour per week of in-class lab work is required. Spanish 102 would be appropriate for someone who has successfully completed SPA 101, or a student with two years of high school Spanish.

### SPA 201 INTERMEDIATE SPANISH I

3 Lecture 0 Lab 3 Credit Hours(s)

A thorough review of Spanish grammar plus intensive reading and discussion of several short stories. Several poems are also read and discussed as well as assorted

articles of current political, cultural or literary significance. Students with two years or more of high school Spanish and native speakers should take the Spanish Placement Test to determine their level and the courses they may take for credit.

#### SPA 202 INTERMEDIATE SPANISH II

3 Lecture 0 Lab 3 Credit Hours(s)

A continuation of the work begun in Spanish 201: a thorough review of Spanish grammar plus intensive reading and discussion of several short stories. Several poems are also read and discussed as well as assorted articles of current political, cultural and literary significance. A student with a mastery of material covered in Spanish 101, 102 and 201 would be eligible for this course. Native speakers should take the Spanish Placement Test to determine their level and the courses they may take for credit.

#### SPA 204 SPANISH CULTURE AND LANGUAGE I

3 Lecture 0 Lab 3 Credit Hours(s)

An intensive course, three hours per day, five days per week, to be offered in Spain or a Spanish-speaking country. The duration of the course is approximately six weeks. It includes guided excursions to areas of cultural interest. Students are housed with local families whenever possible. Participation subject to approval by the department.

#### SPA 205 SPANISH CULTURE & LANGUAGE II

3 Lecture 0 Lab 3 Credit Hours(s)

An intensive course, three hours per day, five days per week, to be offered in Spain or a Spanish-speaking country. The duration of the course is approximately six weeks. It includes guided excursions to areas of cultural interest. Students are housed with local families whenever possible. Participation subject to approval by the department.

#### SPA 208 CLTRL APP-FOREIGN LANG SKILLS

3 Lecture 0 Lab 3 Credit Hours(s)

A cultural project which offers students the opportunity to learn about language in a non-traditional set up, to be creative and innovative, to relate language to culture, and to test their skills in a communicative manner while rendering a service to the community. Since the course offering changes every year, students should inquire from the department as to what the focus is for that specific semester. Open to students of Spanish, Italian or French. Students select one language.

Prerequisite: SPA 102 or 199 or permission of instructor.

#### SPA 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty

member. Proposed study plans require departmental approval. Projects may be based on reading, research, work experience, or other activities that advance the student's knowledge and competence in the Spanish language. The student's time commitment to the project will be approximately 35-50 hours.

#### SPA 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to SPA 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### SPA 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to SPA 271, except that the student's time commitment to the project will be approximately 105-135 hours.

#### SPA 301 ADVANCED SPANISH I

3 Lecture 0 Lab 3 Credit Hours(s)

Readings from classical and modern authors are used as a basis for conversational practice and study of Spanish and Latin American civilization. Creative expression in writing and imitation of complicated patterns of structure. Independent language laboratory work.

Prerequisite: SPA 202. Native speakers should take the Spanish Placement Test to determine their level and the courses they may take for credit.

#### SPA 302 ADVANCED SPANISH II

3 Lecture 0 Lab 3 Credit Hours(s)

Continuation of SPA 301. Advanced syntax and creative expression in writing. Conversation practice. Language laboratory work.

Prerequisite: SPA 301. Native speakers should take the Spanish Placement Test to determine their level and the courses they may take for credit.

#### SPA 320 SPANISH COMPOSTION & CONVERSTN

3 Lecture 0 Lab 3 Credit Hours(s)

A selection of literary, cultural and journalistic readings will serve as the basis for conversational practice and study of Spanish and Latin American civilization, as well as engaging students in creative self-expression. Students will be exposed to a variety of narrative styles, voices, registers and genres as well as the linguistic intricacies of foreign language study such as false cognates, Anglicisms, idiomatic expressions and other vocabulary topics.

Prerequisite: Score of 600 or higher on Spanish Placement Test and permission of the instructor.

## **SPEECH**

### **SPE 100 FOUNDATIONS OF COMMUNICATION**

3 Lecture 0 Lab 3 Credit Hours(s)

This course is designed to develop students' knowledge and skills pertaining to the fundamental theories, concepts, vocabulary, and practices related to the discipline of communication. Topic areas the course addresses include the process of communication, as well as verbal, nonverbal, listening, interpersonal, small group, intercultural, organizational, public and mediated forms of communication.

### **SPE 101 PUBLIC SPEAKING**

3 Lecture 0 Lab 3 Credit Hours(s)

This course is devoted to the study of oral communication as it relates to the speaker, her/his purpose, subject, outline, presentational aids, delivery and audience. The first part of the course emphasizes the theory of public speaking, while the latter part is concerned with the analysis, preparation and performance in the areas of informative, demonstrative, persuasive and occasional speaking.

### **SPE 102 ORAL INTERP OF LITERATURE**

3 Lecture 0 Lab 3 Credit Hours(s)

This course explores basic techniques of reading aloud and the selection, analysis, and performance of prose, poetry, children's literature from various cultures, drama, and documentary. Emphasis is on the general improvement of oral performance skills.

### **SPE 111 TAKE TERROR OUT OF PERFORMANCE**

1 Lecture 0 Lab 1 Credit Hours(s)

This course is designed for those who would like to reduce their fear of speaking or performing in front of an audience. Students explore the origin and extent of their anxiety and learn practical methods for dealing with all types of performance apprehension.

### **SPE 115 EFFECTIVE LISTENING**

1 Lecture 0 Lab 1 Credit Hours(s)

In this course students will develop an awareness of the process and role of listening in oral communication. In addition, students will develop skills related to analyzing and improving therapeutic, critical, and appreciative listening.

### **SPE 116 INTERVIEWING TO GET THE JOB**

1 Lecture 0 Lab 1 Credit Hours(s)

This course provides straight-forward, practical advice on developing communication skills needed to effectively prepare for and perform during a job interview. Students will benefit from role-play interviews using the most-often-asked questions by interviewers.

### **SPE 201 ARGUMENTATION AND PERSUASION**

3 Lecture 0 Lab 3 Credit Hours(s)

This is a course devoted to the theory and practice of persuasive techniques in oral communication. Special emphasis is on the role of evidence, logic, fallacies, emotions, style, organization and delivery in oral persuasive communication.

Prerequisite: ENG 101.

### **SPE 210 SMALL GROUP COMMUNICATION**

3 Lecture 0 Lab 3 Credit Hours(s)

This course introduces students to the topic and study of communicating in small groups with an emphasis on the principles and techniques of discussion, and on the development of effective participation by group members in small groups at school, at home, and in the workplace. Specifically, they will study methods for how to be successful leaders in small groups, manage meetings effectively, manage group conflicts, organize group activity to address problems in the home and workplace, and how to identify, analyze, and address problems in group dynamics.

### **SPE 219 INTERCULTURAL COMMUNICATION**

3 Lecture 0 Lab 3 Credit Hours(s)

This course will explore the methods by which people of various races, cultures, genders, religions, socio-economic backgrounds and sexual orientations communicate verbally and non-verbally. Students will develop the skills necessary to build and maintain positive communication across cultures. Students will focus on similarities and differences in communication behaviors, and they will explore how perceptions, language usage, nonverbal style, thinking modes and values influence communication between individuals of different cultures. By the end of the course, students will more fully understand their own cultures, as well as intercultural communication in their community, place of employment, country, world and in the media.

Prerequisite: ENG 101

### **SPE 271 SPECIAL STUDY PROJECT I**

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, travel, work experience, or other activities that advance the student's knowledge and competence in oral communication, theatre or related subjects. The student's time commitment to the project will be approximately 35-50 hours.

### **SPE 272 SPECIAL STUDY PROJECT II**

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to SPE 271, except that the student's time commitment to the project will be approximately 70-90 hours.

#### SPE 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to SPE 271, except that the student's time commitment to the project will be approximately 105-135 hours.

### SUSTAINABLE SYSTEMS

#### SUS 101 SUSTAINABILITY CONCEPTS/APPLIC

3 Lecture 0 Lab 3 Credit Hours(s)

In this course students will define sustainability and explore the technology that supports the application of sustainability concepts in buildings, energy, and resource management. Methods and technologies in building systems, energy systems, and resource management and conservation that foster sustainability will be investigated qualitatively and quantitatively. Through these activities students will begin to see how systems could be (re)designed to create sustainable communities.

Pre-requisites: College level English proficiency. MAT 091 (Beginning Algebra) or its equivalent.

### THEATRE

#### THE 103 DESIGN AND STAGECRAFT

2 Lecture 2 Lab 3 Credit Hours(s)

This course includes various techniques on how to design and construct scenery for theatrical performances. Topics may involve designing on paper, building on models, construction methods for production, script analysis, and the study of lighting.

#### THE 105 THEATRE HISTORY I

2 Lecture 2 Lab 3 Credit Hours(s)

The elements of theatre are examined from the ancient Greeks through the 19th century with the objectives of understanding the development of theatre production, architecture, design, technology, acting styles, and playwriting. Concepts from lecture material are put to practical use in laboratory exercises where students stage scenes from historical plays.

#### THE 106 SCRIPT ANALYSIS & PRODUCTION

2 Lecture 2 Lab 3 Credit Hours(s)

This course offers students techniques on how to read a script and analyze it for themes, structure, style and meaning, so that a play can go from the printed page to a fully realized theatrical production. Topics include the selection of plays, casting, writing, directing, producing, acting, costuming, and scene design, including the

application of these techniques to various media and special-purpose presentations.

#### THE 109 ACTING I

2 Lecture 2 Lab 3 Credit Hours(s)

This course introduces the student to the basic skills of acting; the development of imagination, self-awareness, body control and voice; the techniques of stage movement; textual analysis; creation of character; rehearsal; the application of these skills to various media and special-purpose presentation.

#### THE 110 HOW TO AUDITION

1 Lecture 0 Lab 1 Credit Hours(s)

This course develops the basic skills needed to complete a successful audition. Topics covered include: interviews, professional pictures and resumes, audition monologues, finding an agent or manager and cold readings.

Pre- or Co-requisite: THE 109

#### THE 120 PERFORMING SKILLS FOR CLASSROOM

3 Lecture 0 Lab 3 Credit Hours(s)

This theatre course empowers the education student with various theatrical performance skills to captivate students and creatively convey information. Lessons involve the use of physical and vocal animation and enthusiasm, humor, imaginative use of space, storytelling, role-playing, props, suspense and surprise. Note: This course is intended for students preparing to be teachers.

#### THE 161 THEATRE PRACTICUM I

2 Lecture 2 Lab 3 Credit Hours(s)

This course will enable the students to put theory into practice by experiencing first hand the creation of a live performance of a professional play from start to finish. This includes securing the rights to a play, pre-production meetings, casting, acting, stage managing and creating sets, lights, costumes, sound, props, multimedia, makeup, publicity and programs. The course will culminate in a series of public performances.

Pre- or Corequisite: THE 105

#### THE 201 PLAY DIRECTING

2 Lecture 2 Lab 3 Credit Hours(s)

Students will experience first-hand the theater director's role including his/her relation to the play, script, character analysis, the elements of drama, use of dialogue, dramatic devices, blocking and staging, casting, rehearsals and production. Also explored will be the director's relationship to the producer, as well as the technical aspects of the production - lights, set, sound, costumes, props and multi-media.

Prerequisite: THE 105.

#### THE 209 ACTING II

2 Lecture 2 Lab 3 Credit Hours(s)

This course further develops the basic skills of acting that were introduced in Acting I. These skills include the development of imagination, emotional recall, sense memory, listening, body control, voice, improvisation, stage movement, textual analysis, creation of character, action and objective, rehearsal, and especially Scene Study, including the application of these skills to various media.

Prerequisite: THE 109

#### THE 220 ACTING FOR THE CAMERA

2 Lecture 2 Lab 3 Credit Hours(s)

This course provides an opportunity to study the practical approaches to acting in front of the camera. It is a study in contemporary performance with a basic and essential knowledge of on-camera acting for film and television, as well as voice-over recording. There is also opportunity for self-directed learning with group performances in the television studio and audio production suites, as well as performing in student-directed television projects. The course places an emphasis on on-camera acting/performing techniques.

Prerequisite: THE 109 or COM 101

#### THE 261 THEATRE PRACTICUM II

2 Lecture 2 Lab 3 Credit Hours(s)

This course is an opportunity for the advanced performing arts student to take a leadership role in the creation of a live performance of a professional play from start to finish. This includes securing the rights to a play, pre-production meetings, casting, acting, stage managing, creating sets, lights, costumes, sound, props, multi-media, makeup, publicity and programs. The course will culminate in a series of public performances.

Prerequisite: THE 161.

#### THE 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, travel, work experience, or other activities that advance the student's knowledge and competence in oral communication, theatre or related subjects. The student's time commitment to the project will be approximately 35-50 hours.

#### THE 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to THE 271, except that student's time commitment to the project will be approximately 70-90 hours.

#### THE 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to THE 271, except that student's time commitment to the project will be approximately 105-135 hours.

### WELLNESS AND FITNESS EDUCATION

#### WFE 101 WELLNESS AND FITNESS EDUCATION

2 Lecture 2 Lab 3 Credit Hours(s)

This course will provide students with the necessary knowledge to make well informed decisions about lifetime wellness, fitness activities and behavior modifications. Students will learn concepts in the various components of fitness, diet and weight control, and stress management with an emphasis on health risk reduction and improving their quality of life. Through lecture/laboratory presentations, assessments and computer technology, students will apply learned concepts to the design of individualized fitness and wellness programs. In the process, students will also have the opportunity to explore and experience options in 'fitness for life' activities.

Note: Students must register for both a lecture and lab.

#### WFE 102 WELLNESS AND FITNESS (LECTURE)

2 Lecture 0 Lab 2 Credit Hours(s)

This is the lecture portion only of WFE 101. Credit for this course will be given to students who pass a proficiency test. Knowledge in this course includes the ability to make educated decisions about lifetime wellness and fitness activities. Topics covered include concepts in cardiovascular and other components of fitness; diet and weight control; and stress management with emphasis on health risk reduction and improving the quality of one's life. Education in protective behaviors will go beyond risk reduction for chronic and degenerative diseases to include abusive behaviors and sexually transmitted infections.

#### WFE 103 WELLNESS AND FITNESS (LAB)

0 Lecture 2 Lab 1 Credit Hours(s)

This is the lab portion only of WFE 101. This course will be only for students who have proficiency credit for WFE 102. This course will provide students with the necessary knowledge to make educated decisions about lifetime wellness and fitness activities. Using laboratory assessments and computer technology, students will be tested on concepts in cardiovascular and other components of fitness; diet and weight control; and stress management with an emphasis on health risk reduction and improving their quality of life. Students will apply learned concepts to the design of individualized fitness and nutritional programs. In the process, students will also have the opportunity to explore and experience options in 'Fitness for Life' activities as well as to evaluate commercial fitness devices and fitness centers. Adaptive students will be accommodated and are required to contact the individual instructor before class begins.

### WFE 271 SPECIAL STUDY PROJECT I

1 Lecture 0 Lab 1 Credit Hours(s)

A special learning experience designed by one or more students with the cooperation and approval of a faculty member. Proposed study plans require departmental approval. Projects may be based on reading, research, community service, work experience, or other activities that advance the student's knowledge and competence in the field of wellness or fitness education, or related areas. The student's time commitment to the project will be approximately 35-50 hours.

### WFE 272 SPECIAL STUDY PROJECT II

2 Lecture 0 Lab 2 Credit Hours(s)

Similar to WFE 271 except that the student's time commitment to the project will be approximately 70-90 hours.

### WFE 273 SPECIAL STUDY PROJECT III

3 Lecture 0 Lab 3 Credit Hours(s)

Similar to WFE 271 except that the student's time commitment to the project will be approximately 105-135 hours.