### Course Abbreviations

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<th>PREFIX</th>
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<tr>
<td>AAD</td>
<td>APPLIED ART AND DESIGN</td>
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<td>ACC</td>
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<td>ACD</td>
<td>ALCOHOL/CHEMICAL DEPENDENCY</td>
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<td>AGS</td>
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<td>AMERICAN SIGN LANGUAGE/FOREIGN LANGUAGE</td>
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<td>CLINICAL/MEDICAL LABORATORY TECHNICIAN</td>
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<td>HEATING, VENTILATING AND AIR CONDITIONING</td>
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<td>IDC</td>
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AAD - Applied Art and Design

AAD 104  Introduction to Graphic Design, 2D 3 Credits
A course which will introduce the student to basic graphic skills. Emphasis will be placed on applying the elements and principles of two-dimensional design to specific graphic design tasks in order to build visual literacy skills. Emphasis will be placed on both computer and hand skills used in the production of graphic art work.
- Course takes place within a Macintosh environment utilizing Adobe software.
- Students will be required to purchase art supplies and materials.
- Students may be required to print at a local service bureau.
Three class hours. Course offered Fall and Spring.

AAD 105  Typography 3 Credits
A comprehensive exploration and application of typography in graphic design. Students will study the design and use of typography from historical to contemporary perspectives, explore the relationship between type and image in visual communications, and create projects using typography as a major element of the design. This course fulfills the MCC requirement for a humanities elective. Three class hours. Course offered Fall and Spring.

AAD 107  A History of Graphic Design 3 Credits
This course surveys the pivotal events and achievements that led to the current state of graphic design. The unceasing quest to give form to ideas is traced from the pictographs painted on cave walls to the latest imaginative designs. Through lectures, videotapes, discussions, research and studio projects, students are introduced to the creative thinkers, important innovations and breakthrough technologies that have shaped the evolution of visual communication. This course will include discussion of the social, political and economic factors that have influenced art and design through the ages. This course fulfills the MCC requirement for a social science elective. Three class hours. Course offered Fall and Spring.

AAD 108  Ideation: Illustration and Design 3 Credits
This course involves investigation into the basic technical, aesthetic and conceptual aspects of illustration and design. The philosophy of the course is that innovation is a skill that is both visual and experiential, which, through practice, evokes insights, associations and resonances. The course teaches basic ideation skills—how to see, think and respond through observing, experiencing, drawing and designing to solve a variety of visual problems. This is a studio-based subject involving intensive, practical, hands-on exercises taught simultaneously with visual theory. The course seeks to expand each student’s visual vocabulary, aesthetic consciousness and creative thought.
- Course takes place within a Macintosh environment utilizing Adobe software.
- Students will be required to purchase art supplies and materials.
- Students may be required to print at a local service bureau.
Three class hours. Course offered Fall and Spring.

AAD 112  Graphic Design 1 3 Credits
This course explores the various aspects of graphic communication and will cover concepts, typography, layout and general graphic techniques. Course materials are designed to advance an understanding of design tools and design principles, artisanship and conceptual skills through the exploration of visual elements, order, concept and language. Three class hours. Course offered Fall and Spring.
Prerequisite: COM 104/AAD 104 and COM 105/AAD 105; or permission of instructor.

AAD 160  Graphic Illustration: Vector Drawing 3 Credits
This course is designed to introduce the benefits, complexities and application of vector illustration and design (using Bezier curves) within a creative explorative environment. Learning to integrate traditional and digital image making techniques, students will be introduced to various methods of visual problem solving. The skills and ideas covered in this course are invaluable to students considering a career or study path in fine art, design, illustration, print media, motion graphics, animation or other media related arts.
- Course takes place within a Macintosh environment utilizing Adobe software.
- Students will be required to purchase art supplies and materials.
- Students may be required to print at a local service bureau.
Three class hours. (SUNY-A) Course offered Fall and Spring.
Prerequisite: COM 104/AAD 104 or IDE 160 or permission of instructor.

AAD 165  Digital Prepress 3 Credits
Introduces the student to the essentials of digital color prepress issues. An in-depth use of digital technology in the lithographic printing and production cycle will be explored. Students will experience both the theoretical and practical challenges of new prepress tools. Topics will include color separations, digital trapping and digital halftones. Two class hours, two laboratory hours. Course offered Fall and Spring.
Prerequisites: AAD 112, AAD 160, and AAD 260; or permission of instructor.

AAD 167  Web Design: Graphics 3 Credits
A Graphic Design course that provides instruction in various processes that involves the planning for, and designing of Internet-based information publishing. Introduces students to the theoretical principles of graphic language and also affords the practical opportunity to apply the principles using modern Internet publishing tools. Topics include: image design and preparation, typography, viewer expectations, precedence (guiding the eye), navigation, usability and accessibility practices, and some techniques for the evaluation of web design.
- Course takes place within a Macintosh environment utilizing Adobe software.
- Students will be required to purchase art supplies and materials.
- Students may be required to print at a local service bureau.
Three class hours. Course offered Fall and Spring.
Prerequisite: AAD 160, AAD 104 and AAD 105; or permission of instructor.

AAD 205  Graphic Design 2 3 Credits
This course explores the creative display, organization and communication of ideas and information through word and image. The design principles covered in these courses apply to all presentation media; print, computer, film/video, exhibit and environmental graphics. Course projects will require typographic skills and an ability to communicate with pictorial information. Three class hours, three studio hours. Course offered Fall and Spring.
Prerequisite: COM 112/AAD 112

AAD 220  Professional Practices 3 Credits
This course will review, through practice, the application of professional trade customs associated with the visual arts. The experience is intended to give students an understanding of production procedures and business practices relevant to creative professionals. Students will learn the basics of managing creative practices such as design and/or illustrative work from initial client contact to project completion. Production issues related to the various applied arts will be studied—types of businesses, methods of finding work, examining costs, common pitfalls, writing contracts, managing design/ illustration/creative jobs, and preparing digital work for production. Working with other creative artists, and copyright law, as it applies to visual arts, will also be studied.
- Course takes place within a Macintosh environment utilizing Adobe software.
- Students will be required to purchase art supplies and materials.
- Students will be required to print at a local service bureau.
Three class hours. Course offered Fall and Spring.
Prerequisite(s): AAD 104 and AAD 105.
AAD 250  Printing Process  4 Credits
And advanced course focusing on the in-depth study of the theory and techniques of graphic arts skills covering pre-press, press and finishing stages. Students will extend their prior knowledge and skills while exploring the parameters of print media through the production of multi-component projects. By managing projects from concept development through press and finishing stages, students will gain experience in advanced project planning, output, and hands-on experience with offset presses. Projects may include a self-promotional booklet, as well as print projects for outside clients. Three class hours, two laboratory hours. Course offered Fall and Spring.
Prerequisite: AAD 165

AAD 256  Motion Graphics  3 Credits
Introduction to time based graphic design. Students will be exposed to both traditional and experimental methods of producing short motion sequences. Through a series of exercises and assignments, conceptual problem solving and the design of motion graphics will be emphasized. In addition to producing short motion sequences students will also view and discuss various commercial and independent works. Students must be able to practice good organizational and planning skills. Experience in design, photo imaging and vector graphics is a plus, but not necessary.
Three class hours. Course offered Fall and Spring.
Prerequisite: AAD 165 Typography or permission of instructor

AAD 260  Applied Imaging, Raster Graphics  3 Credits
This course is designed to introduce the benefits, complexities and application of raster graphics, illustration and design within a creative explorative environment. The curriculum emphasizes both craft and visual problem solving. Emphasis is placed on the development of the student’s ability to apply creative thinking and contemporary techniques in creating meaningful and effective photographic illustrations and design. Course projects will emphasize use of computers, digital cameras and scanners.
- Course takes place within a Macintosh environment utilizing Adobe software.
- Students will be required to purchase art supplies and materials.
- Students may be required to print at a local service bureau.
Three class hours. Course offered Fall and Spring.

AAD 290  Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall only.

ACC - Accounting

ACC 101  Accounting Principles I  4 Credits
Basic principles of financial accounting for the business enterprise with emphasis on the valuation of business assets, measurement of net income, and double-entry techniques for recording transactions. Introduction to the cycle of accounting work, preparation of financial statements, and adjusting and closing procedures. Four class hours. Course offered Fall and Spring.
Prerequisite(s): TRS 094 or MTH 130, with a grade of C or better OR ACC 101 with a minimum grade of C or higher, or the sequence ACC 110 and ACC 111 with an average grade of at least C.

ACC 102  Accounting Principles II  4 Credits
A continuation of the basic principles of financial accounting including a study of corporation accounts and the statement of cash flows. The course deals with the development of accounting theory with emphasis on managerial techniques for interpretation and use of data in planning and controlling business activities. Four class hours. Course offered Fall and Spring.
Prerequisite: ACC 101 with a minimum grade of C or higher, or the sequence ACC 110 and ACC 111 with an average grade of at least C.

ACC 110  Fundamentals of Accounting I  2 Credits
An introductory course in the study of the basic accounting cycle. The recording and summarizing aspects will be covered with the emphasis on analysis of financial information and the role of accounting in the decision making process. No credit given for both ACC 101 and ACC 110. Successful completion of both ACC 110 and ACC 111 is equivalent to ACC 101. Two class hours, one conference hour. Course offered Fall and Spring.
Prerequisite(s): TRS 094 or MTH 130, with a grade of C or better OR ACC 110 with a minimum grade of C or higher, or the sequence ACC 110 and ACC 111 with an average grade of at least C.

ACC 111  Fundamentals of Accounting II  2 Credits
A continuation of ACC 110. Includes coverage of the summary function, preparation and analysis of financial statements, cash control, receivables, inventory valuation, plant assets, and current liabilities. No credit given for both ACC 101 and ACC 111. Successful completion of both ACC 110 and ACC 111 is equivalent to ACC 101. Two class hours. Course offered Fall and Spring.
Prerequisite: ACC 110

ACC 130  Introductory Accounting and Financial Analysis  4 Credits
Basic principles of both financial and managerial accounting with the focus on what accounting information is, what it means, and how to use it. Students will learn that accounting is a vital link between business events and business decisions. Four class hours. Course offered Fall and Spring.
Prerequisite(s): TRS 094 or MTH 130, with a grade of C or better OR ACC 101 with a minimum grade of C or higher, or the sequence ACC 110 and ACC 111 with an average grade of at least C.

ACC 201  Accounting Applications  3 Credits
An applied/practical approach to the operation of computerized general ledger system. Material covered will include accounts receivable, inventory management, sales invoicing, accounts payable, and cash management. Emphasis is placed on the use of special journals, subsidiary ledgers, and data entry/retrieval. Scheduled to be offered in the Fall semester during the day and the Spring semester during the evening. Three class hours.
Prerequisite: ACC 101 with a minimum grade of C or higher, or the sequence ACC 110 and ACC 111 with an average grade of at least C.

ACC 202  Payroll Accounting  2 Credits
To provide an interesting and useful understanding of accounting for payroll. The course will cover all the basics of payroll, including many of the laws affecting payroll. Course offered Fall semester during the evening and the Spring semester during the day. Two class hours.
Prerequisite: ACC 101 with a minimum grade of C or higher, or the sequence ACC 110 and ACC 111 with an average grade of at least C.

ACC 204  Tax Procedures  3 Credits
A study of federal, state, and local tax law and procedures for corporations, partnerships, and individuals. Course offered Fall semester during the evening and Spring semester during the day. Three class hours.
Prerequisite: ACC 101 with a minimum grade of C or higher, or the sequence ACC 110 and ACC 111 with an average grade of at least C.

ACC 205  Financial Analysis  4 Credits
To provide an interesting and useful understanding of financial analysis in today's economy. Process and job-order methods, of production and distribution of goods and services used to determine, accumulate and control the cost of production and distribution of goods and services in today's economy. Process and job-order methods,
ACD - Alcohol/Chemical Dependency

ACD 140 Alcoholism/Chemical Dependency and the Human Service Worker 3 Credits
Designed to heighten students’ awareness of substance abuse problems. Students will develop a base knowledge concerning the pharmacology of drugs, including the different types of drugs and their physiological and psychological effects. An exploration of the social response to their use will be included. Areas of social service practice to be covered include theories and models of the etiology of chemical dependency as well as tactics of prevention and treatment designed to meet client needs. (Carries MCC college credit and 45 hours N.Y.S. OASAS-approved credit.) Three class hours. Course offered Fall and Spring. Prerequisite: Placement at ENG 101 level.

ACD 246 Alcohol/Chemical Dependency Internship Seminar 6 Credits
Provides students with in-depth experience in the addiction treatment field. Students will complete an internship totaling 300 hours for the course i.e. averaging 20 hours per week for 15 weeks, plus a 2-hour-a-week seminar, or 25 hours a week plus a 2 1/2 hour-a-week seminar in the 12 week summer program. In the seminar, issues encountered by the students in their internships will be addressed, and information regarding some needed skills and knowledge will be provided. Internship hours worked in addiction treatment agencies may be counted as volunteer work hours or as educational hours toward the N.Y.S. CASAC but not both. Two class hours, 300 experiential hours. Course offered Fall and Spring. Prerequisite(s): ACD140, ACD143, ACD144, ENG101, HUM101/HUM111, all with a C or higher and permission of instructor.

ACD 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

AGS - Agricultural Studies

AGS 101 Introduction to Agriculture 1 Credit
The course will include the introduction of some basic scientific principles relating to agriculture and food production. Students will gain an awareness of educational and career opportunities in agriculture. Examples of global and local agriculture will be presented through readings, discussion, and field trips. The course is designed for any student interested in agriculture and food production. This course fulfills the MCC requirement for a natural science elective. One class hour. Course offered Fall and Spring.

AGS 110 Introduction to Greenhouse Management 3 Credits
A basic course emphasizing the significance and use of controlled climate structures. Studies include grow structures, plant growth, propagation, pest and disease management. This course is designed for the career or non-science student. This course fulfills the MCC requirement for a natural science elective. (SUNY-NS). Two class hour. Two lab hours. Course offered Spring only.

AGS 150 General Microbiology for Food and Agriculture 4 Credits
An introduction to the basic principles relating to microorganisms and contaminants associated with food and fiber production. Students will gain an awareness and understanding of pathogens, contaminants, and control methods associated with fresh and processed foods while maintaining quality. The course is designed for a student interested in agriculture and food production. This course fulfills the MCC requirement for a natural science elective. Three class hours. Two lab hours. (SUNY-NS) Course offered Fall only.

ACD 143 Alcoholism/Chemical Dependency Counseling Skills 3 Credits
Development of specialized skills in individual counseling specific to the field of chemical dependency. A major component will be the in-depth consideration of each client’s individual needs. (Carries MCC college credit and 45 hours N.Y.S. OASAS-approved credit.) Three class hours. Course offered Fall and Spring. Prerequisite: ACD 140 with a grade of C or higher or taken concurrently.

ACD 144 Alcoholism/Chemical Dependency/ Substance Abuse Group Counseling Skills 3 Credits
Development of specialized skills in group counseling appropriate in the field of chemical dependency counseling. Methods of application of these skills and knowledge necessary for implementing effective counseling will be provided. (Carries MCC college credit and 45 hours N.Y.S. OASAS-approved credit.) Three class hours. Course offered Fall and Spring. Prerequisite: ACD 140 with a grade of C or higher or taken concurrently.

ACD 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

ACD 241 Alcoholism/Chemical Dependency Treatment Modalities 3 Credits
Provides students with a comprehensive education related to the broad range of planned and continuing services, included, but not limited to: diagnostic evaluation, continuing assessment, counseling, medical pharmacological, psychiatric, psychological, social care, relapse prevention, vocational rehabilitation and career counseling. Will develop cognizance of confidentiality and ethical issues involved in assessment and treatment, which may be extended to persons with alcohol and other substance abuse problems. (Carries MCC college credit and 45 hours N.Y.S. OASAS-approved credit.) Three class hours. Course offered Fall and Spring. Prerequisite: ACD 140 with a grade of C or higher.

ACD 245 Special Issues in the Field of Alcoholism/Chemical Dependency/ Substance Abuse 3 Credits
Provides students with the knowledge and skills that will prepare them to understand and deliver appropriate services to individuals who have been affected by the use/abuse/dependency on alcohol and other drugs. Issues will include, but not be limited to, communicable diseases, socio-cultural topics, cultural relevance, MICA population, adolescents, elderly, women, gay/lesbian population, violence and abuse, advocacy, counseling wellness, supervision, prevention, and community education. (Carries MCC college credit and 45 hours N.Y.S. OASAS-approved credit.) Three class hours. Course offered Fall and Spring. Prerequisite: ACD 140 with a grade of C or higher.
Forensic Anthropology  3 Credits

This capstone course will utilize an organizational behavior approach for understanding behavior in the workplace to better manage change within food and agriculturally related organizations. This course is intended for those who want to develop the tools for understanding, analyzing and accounting for the work behaviors of individuals and groups. It will use a combination of teambuilding exercises, self-assessment inventories, and case analysis to develop insights that facilitate self-knowledge and teamwork in a dynamic global environment. Topics covered will include, but not be limited to, teamwork and team processes, personality and values, conflict resolution, organizational politics, leadership, motivation, communications, decision making and accountability. Three class hours. Course offered Fall and Spring.

Prerequisites: ENG 101 and any two of: AGS 101, AGS 110, or AGS 150, or permission of instructor.

ANT 201 Native American Peoples and Cultures - WR 3 Credits

Survey of the major regional cultural divisions of North and Meso-America, with intensive analysis of Indian societies selected to illustrate the range of economic, political and social institutions, and the relevance of ecological and historical factors. Three class hours. Course offered Spring only.

Prerequisites: ANT 101 or ANT 102 or SOC 101 or permission of instructor.

ARA 101 Elementary Arabic I 3 Credits

Designed for students with little or no previous experience in the language. Focuses on communicative skills of listening comprehension and speaking, and in developing mastery of the Arabic writing system for basic reading and writing of simple sentences and short paragraphs. Students will also learn customs, traditions, and culture of Arabic speaking countries. Three class hours. (SUNY-FL) Course offered Fall and Spring.

ARA 102 Elementary Arabic II 3 Credits

Continuation of ARA 101 with emphasis on basic language skills for communication and on cultural aspects to promote understanding and appreciation of the Arabic culture. Three class hours. (SUNY-FL) Course offered Fall and Spring.

Prerequisite: ARA 101 or equivalent or permission of instructor. Memory and length of time since last studied are factors in successful placement.
ART 101 Art Essentials 3 Credits
This course is designed to improve the student’s visual perception and expand critical awareness through a variety of hands-on studio projects. The student will become familiar with the methods, materials, media, and techniques of making art. This course is suggested for students who are interested in developing their creative skills but are not art majors. Two class hours, two studio hours. (SUNY-A) Course offered Fall and Spring.

ART 102 Fine Arts: Theory and Practice 3 Credits
This course is required for those enrolling in the Fine Arts degree program, planning to graduate and transfer, and is designed to be taken in the first semester. It is a springboard for a multitude of interests for a future in the arts. The student is introduced through lecture, reading, writing, and discussion, to topics addressing our expectations and the student’s preparation to succeed in the program. Additionally, an overview of the offerings in the discipline, and the expectations and interactions of the Fine Arts courses are provided. The general knowledge areas include: fine arts theory and practice; a personal development plan; the creative process and ideation; exposure to contemporary art practices; and theoretical readings. Three class hours. Course offered Fall and Spring.

ART 103 Drawing I: Foundation 3 Credits
An introductory course that provides the student with experiences in working with a variety of subject matter and media. Various methods and materials (such as graphite, charcoal, conte crayon, and ink) will be explored, and a variety of mixed media techniques will be introduced. A range of drawing concepts will be covered including line, mass, texture, value, color, composition, and space. Emphasis is placed on the development of observational and technical skills needed for image making. Students are responsible for purchasing their own materials for this course. Two class hours, four studio hours. (SUNY-A) Course offered Fall and Spring.

ART 104 Drawing I: Foundation 3 Credits
This course is aimed at any artist, designer or craftsperson who wishes to develop their creative skills through working in sketchbooks. Students will explore traditional and contemporary uses of the sketchbook as an essential tool in creative practice. Emphasis will be placed on ideation, exploration of materials and techniques, and the development of each student’s creative process and areas of interest. The sketchbook will be presented both as a work in its own right and as a preparatory tool for future creative activity. Three class hours. (SUNY-A/H) Course offered Fall and Spring. Prerequisite: ENG 101 or permission of instructor.

ART 105 Two Dimensional Design: Foundation 3 Credits
The intent of this course is to provide students with an introduction to the fundamentals of two-dimensional design. Emphasis will be placed on the elements and principles of two-dimensional design and their use as the building blocks of visual literacy. Through lectures and hands-on assignments, students will gain an understanding of the concepts, vocabulary and skills needed to facilitate their understanding of visual organization. Through the critique process students will have the opportunity to evaluate and analyze their work and the work of others. Students are responsible for purchasing their own materials for this course. Two class hours, two studio hours. (SUNY-A) Course offered Fall and Spring.

ART 106 Sketchbook: Processes and Materials 3 Credits
This class is designed to take students through the process of creating their own comic book or sequential narrative. We will also examine the evolution of the comic, how the comic book is referenced in contemporary society, and appropriate grant writing and portfolio procedures for the comic industry. The course will be divided into three areas: materials, drawing techniques, and themes. While exploring these areas of emphasis, students will begin to develop their own style and voice which will be examined through a series of critiques throughout the semester. Two class hours, two studio hours. Course offered Fall and Spring. Prerequisite: ENG 101

ART 108 Watercolor/Water-based Media 3 Credits
This course introduces the student to the basic tools, materials and practices of watercolor and other water-based media, with an emphasis on the exploration of contemporary approaches to these media. Experimentation with materials and solutions to problems presented in class will be emphasized to instill the student with an understanding of painting as a creative act that reflects the personal sensibilities of the artist. Involvement of the student in critical evaluation of their work and the work of others will be a major component of the course. One class hour, three studio hours. (SUNY-A) Course offered Fall and Spring.

ART 110 Comics and Sequential Art 3 Credits
This course provides a foundation for a basic experience with painting. Exploration with the methods, materials and concepts of acrylic painting will be carried out in a studio setting. Through specifically assigned problems, the beginning student will develop a visual painting vocabulary. Color theory, pictorial composition, figure/ground relationships, visual perception, spatial concepts, and critical thinking skills will all be emphasized. Participation in individual and group critiques of work produced during the course is expected. Students are responsible for purchasing their own materials for this course. Two class hours, four studio hours. (SUNY-A) Course offered Fall and Spring. Prerequisite: ART 104 or permission of instructor.

ART 111 Introduction to Illustration 3 Credits
This course explores a full range of current commercial illustration methods and techniques utilizing the following media: pen and ink, colored pencils, water based media, and marker rendering. This course is also designed to give the student hands on introductory experience in the electronic design studio environment. The student will become acquainted with the computer as another art tool. Students will be using software on the Macintosh computers as well as peripherals such as color scanner, and digital cameras. One class hours, two studio hours. (SUNY-A) Course offered Fall and Spring. Prerequisite(s): ART 104 and ART 109 or permission of instructor.

ART 112 Perspectives of Art History III: Non-Western Art 3 Credits
An introductory course that focuses on the history, development and current influences of non-western art. Particular emphasis is on objects, images and architecture from India, China, Korea, Southeast Asia, Pre-Columbian and Native North and South Americas, Africa, and the cultures of the South Pacific Islands. This course fulfills the MCC requirement for a humanities or social science elective. Three class hours. (SUNY-OWC/H) Course offered Spring only.
ART 125  Three Dimensional Design: Foundation  3 Credits
This course introduces the student to how the elements of line, plane, shape, volume and mass are manipulated in the design of 3D forms. Texture, transparency, unification, modification, color, and other effects on these elements are also incorporated. The elements are defined, experimented with individually, in combination, and cumulatively. Individuality is encouraged within the structured framework of each project. Students experience a wide range of materials and processes to develop a broad three-dimensional experience. Students are responsible for purchasing their own materials for this course. Two class hours, four studio hours. Course offered Fall and Spring.

ART 130  Sculpture I  3 Credits
This course offers a foundation in sculpture as necessary for continued sculptural exploration, including basic knowledge of additive, subtractive, and casting processes. Historical context, the creative process, conceptual development, evaluation, and criticism are emphasized. Students explore these issues through individual projects within a structured framework. Two class hours, four studio hours. (SUNY-A) Course offered Fall and Spring.

Prerequisite: ART 125

ART 154  Drawing the Human Figure  3 Credits
This is an intensive studio-based course that deals primarily with the human form via the nude model and additional supporting means for that study. Assignments are designed to give the students the visual tools needed to accomplish accurate rendering of the figure, with emphasis on anatomy, proportion and the creative interpretation of the human form. A variety of media will be explored such as graphite, conte crayon, charcoal and ink wash. Guided strategies such as contour, gesture, and tonal studies will be utilized while drawing poses that vary in duration. Students are responsible for purchasing their own materials for this course. Two class hours, four studio hours. Course offered Fall and Spring.

Prerequisite: ART 104 or permission of instructor

ART 175  Art Travel  Variable Credit
A course that combines classroom instruction at the MCC campus with travel to and instruction at various off-campus locations including art museums, historical and landmark houses, art galleries, architecturally noteworthy urban sites or town developments. Variable class hours. Variable credit hours. Course offered Spring only.

ART 190  Art Focus  1 Credit
The ART 190 designation is used for art history studies of special interest. The focus will change from semester to semester depending on local art exhibits or significant artistic events. Examples are: Dutch Landscape Painting, Cobblestone Houses in Upstate N.Y., Michelangelo, Themes of Protest in Paintings, Architecture of Frank Lloyd Wright. Variable class hours. Course offered Fall and Spring.

ART 200  Arts Management  3 Credits
This course offers an opportunity to experience the day to day challenges of administering a museum, gallery, box office, performing groups, music recording studio and theater. The student will examine the many aspects of organizing, planning, preparation, promotion and presentation of arts events and productions. The student will learn the methods of working with artists, budgeting, contracts and grant writing. Utilizing Monroe Community College’s Visual and Performing Arts department facilities and other experimental spaces around the campus and Greater Rochester, students will have an opportunity to get hands-on experiences working in the field. The course will have invited guest speakers, art critics, arts managers, and other arts professionals. Field trips to the areas cultural resources will familiarize the student with the rewarding career possibilities in these professions. Three class hours. Course offered Fall and Spring.

Prerequisite: Minimum of 24 credits of college course study.

ART 204  Drawing II  3 Credits
This course expands upon the basic skills developed in ART 104. The student will be provided with advanced drawing problems related to creative and expressive image making. Various approaches to methods, materials, subject and content will be explored as a way to continue to develop the student’s conceptual and perceptual abilities. Students are responsible for purchasing their own materials for this course. Two class hours, four studio hours. Course offered Fall and Spring.

Prerequisite: ART 104

ART 205  Commercial Illustration I  3 Credits
A course which explores a full range of current commercial illustration methods and techniques utilizing the following media: pencil, pen and ink, watercolor, and collage. Two class hours, four studio hours. Course offered Fall only.

Prerequisites: ART 104, ART 109 or permission of instructor.

ART 206  Commercial Illustration II  3 Credits
This course expands upon the foundation established in Painting I. Increased emphasis will be placed on experimentation, the expressive potentials of the medium, and on developing a perspective on the relationship between the formal techniques and the conceptual aspects of painting. Participation in individual and group critiques of work produced during the course is expected. Students are responsible for purchasing their own materials. Two class hours, four studio hours. Course offered Fall and Spring.

Prerequisite: ART 120 or permission of instructor.

ART 220  Painting II  3 Credits
This course is a continuation of sculpture including figure study of the torso, and personal exploration in any of the three areas studied in ART 130. The student will concentrate on the development of a concept, experimentation, technical drawings and maquettes, leading to the creation of the final sculptural project. Two class hours, four studio hours. Course offered Fall and Spring.

Prerequisite: ART 130

ART 231  Art Seminar/Portfolio Development  3 Credits
A course for the student who has completed 20 credits in the visual arts, interior design, or graphic arts courses. The seminar will critically summarize the students’ art experiences and provide techniques and methods to sustain, maintain and foster personal and professional growth in their fields. Topics to be covered are: self-evaluation techniques, preparing, presenting and maintaining a professional portfolio, transfer advisement and career advisement. Guest lectures, visits to arts organizations, art galleries, area colleges, private and commercial studios, will expose the student to a variety of arts organizations and career possibilities. Three class hours. Course offered Fall only.

ART 240  Women, Art and Society  3 Credits
This course examines the role of women in the visual arts as both image maker (artist) and as image (subject) and how these images reflect social constructs/expectations. This course fulfills the MCC requirement for a humanities or a social science elective. Three class hours. (SUNY-H) Course offered Fall only.

ART 270  American Art and Architecture  3 Credits
An introductory study of major paintings, buildings and sculpture in the United States. Beginning with the colonial period, the survey examines the development of American Art through the present with an emphasis on the unique resources and buildings of the Rochester community. Three class hours. (SUNY-H) Course offered Fall and Spring.
ART 271  20th Century Art and Ideas  3 Credits
A survey course in modern and contemporary art from
1870 to the present with an emphasis on innovations
and developments in 20th century painting, sculpture,
architecture, urban planning, photography, and the
decorative arts. Individual artists and movements
such as constructivism, art deco, dadaism, cubism,
expressionism, international style, and post-modernism
will be studied in relationship to the events and works
that shape our present cultural environment. This course
fulfills the MCC requirement for a social science
elective. Three class hours. (SUNY-FL) Course offered
Fall only.

ART 290  Independent Study  Variable Credit
See the Department Chairperson. Course offered Spring
only.

ASL - American Sign
Language /Foreign

Language

ASL 101  American Sign Language I  3 Credits
Designed for students with little or no previous
experience in the language. Focuses on communicative
skills of sign comprehension and production. Includes
high frequency vocabulary, basic sentence constructions,
common phrases, and cultural aspects of the Deaf
community. Also stresses student participation in skills
development. This course fulfills the MCC requirement
for a humanities elective. Three class hours. (SUNY-FL)
Course offered Fall and Spring.

ASL 102  American Sign Language II  3 Credits
A continuation of ASL 101, with emphasis on basic
language skills for communication and on cultural aspects
to promote understanding and appreciation of Deaf
culture. This course fulfills the MCC requirement for a
humanities elective. Three class hours. (SUNY-FL) Course
offered Fall and Spring. 
Prerequisite: ASL 101 or permission of the instructor.

ASL 103  American Sign Language III  3 Credits
A continuation of ASL 102 for those with a basic
foundation in American Sign Language communication.
Grammar and vocabulary are continued at a higher level.
Cultural topics are included in the study of grammar and
structure. This course fulfills the MCC requirement for a
humanities elective. Three class hours. (SUNY-FL) Course
offered Fall and Spring.
Prerequisite: ASL 102 or permission of the instructor.

ASL 104  American Sign Language IV  3 Credits
A continuation of ASL 103 for students with intermediate
competency in the language. Special attention is given to
application of complex grammatical principles, including
non-manual signals and temporal/distributional aspects.
This course fulfills the MCC requirement for a humanities
elective. Three class hours. (SUNY-FL) Course offered
Spring only.
Prerequisites: ASL 103 or permission of the instructor.

ASL 201  American Deaf Culture and
Community  3 Credits
This course provides a thorough analysis of the
development of Deaf culture in the United States of
America. Topics include: education of the D/deaf; Deaf
films, theaters and clubs; preservation of American
Sign Language; technology and services in the Deaf
community; cochlear implantation. The student's
acculturation process is facilitated by active participation
in the Rochester Deaf community. This course fulfills the
MCC requirement for a humanities elective. Three class
hours. (SUNY-FL) Course offered Spring only.
Prerequisite: ASL 102 or ASL 103.

ASL 216  Special Topics in Deaf Studies and
American Sign Language  3 Credits
This course is designed to address specific topics of
interest in Deaf Studies and ASL. Offerings are more
specific and focused than the Introductory surveys.
Offerings provide students with a deeper understanding
and appreciation of Deaf Studies and ASL. Examples
of possible offerings include, but is not limited to:
Artistic Expressions of Deafhood, Deaf Art and Cinema,
Career Explorations in the Sign Language Field and
General Linguistics. Topics may change from semester
to semester based on faculty and student interest. The
classes will be primarily lecture and discussion based
and may include occasional relevant outside events.
Prerequisite: ASL 103 or equivalent of permission of
instructor.

ATP - Automotive
Technology

ATP 100  Automotive Services  3 Credits
This hands-on course is designed for both consumers
interested in repairing
their own cars and individuals interested in entry
level skills that will help them gain employment in the
automotive industry. Lectures, demonstrations and
hands-on activities provide an overview of automotive
systems. Can be substituted for any one of the ATP
171-176 work experience courses. Two class hours, two
laboratory hours. Course offered Fall and Spring.
Prerequisite: Permission of Department.

ATP 101  Introduction to Automotive
Technology  5 Credits
An introductory course designed for automotive students
that provides theory for a foundation in the field of
automotive technology. All systems of the automobile are
covered. Offered in the Fall and Spring Semesters. Three
class hours, three laboratory hours. Course offered Fall
and Spring.
Prerequisite: Permission of the department.

ATP 102  Electrical/Electronic Systems 1 -
Automotive  3 Credits
A study of basic automotive electricity including Ohms
law, circuit analysis, meter usage, discrete solid state
components, magnetic induction, motor principles, and
wire repair. Two class hours, two laboratory hours.
Course offered Fall and Spring.
Prerequisite: Permission of the Department

ATP 103  Electrical 2 - Automotive  4 Credits
It is required that students have an extensive electrical
type knowledge and completed ATP 102 or ATP
152. Theory-related instruction and demonstration
of testing and repair procedures covers automotive
charging, starting, lighting, and accessories. Schematic
reading is emphasized throughout the course. Three
class hours, two laboratory hours. Course offered Fall
and Spring.
Prerequisite: Permission of the Department.

ATP 104  Emission Controls, Computer and
Fuel Systems 1  3 Credits
Theory related instruction and demonstration of testing
and repair procedures covering emission controls,
enGINE performance diagnosis, 2 & 4 gas analysis, scope
patterns, and ignition systems. Two class hours, two
laboratory hours. Course offered Fall only.

ATP 105  Brakes - Automotive  4.5 Credits
Theory related instruction and demonstration of testing
and repair procedures covering automotive brake
systems. Includes drum and disc brakes, hydraulic
systems, power assist and anti-lock systems. Three
class hours, three laboratory hours. Course offered Fall
and Spring.
Prerequisite: Permission of Department.

ATP 106  Steering and Suspension -
Automotive  5 Credits
In-depth study of adjustable and non-adjustable
alignment measurements with emphasis on proper
alignment techniques, methods of adjustment, complete
4-wheel alignment. Manual and power steering system
diagnosis and repair, complete suspension system
service including coil spring, torsion bar, and MacPherson
struts. Three class hours, three laboratory hours. Course
offered Spring only.
Prerequisite: Permission of Department.
A course description for an Automotive Technology program is provided, including course codes, titles, credits, descriptions, and prerequisites. The courses cover a range of topics from automotive theory and practice to specific systems like heating, cooling, and electrical systems. Each course is designed to provide hands-on experience and practical skills for students interested in the automotive industry. The program includes co-op experiences for students to gain real-world work experience. The courses are offered in different combinations and schedules to accommodate various learning needs and schedules.
ATP 159  Heating and Air Conditioning -  
Automotive Theory  3 Credits  
Theory related instruction and demonstration of testing and repair procedures covering automotive heating and air conditioning systems. This course provides theory for R-12 and R-134a systems. Two class hours. Course offered Fall and Spring.  
Prerequisite: Permission of Department  

ATP 160  Automotive Parts and Service  
Department Management  3 Credits  
An overview of automotive parts and service department management policies and procedures, and the responsibilities of the managers of each department. This course includes customer relations and employee motivation. Three class hours. Course offered Fall and Spring.  

ATP 162  Engine Performance -  
Automotive Theory  3 Credits  
The theory and operation of and diagnosis of computerized engine controls and fuel systems. Three class hours.  
Prerequisite: Permission of Department  

ATP 165  Introduction to Automotive Hybrid Technology  3 Credits  
A theory course designed for non automotive major students that provides an introduction to automotive hybrid and alternative fuel technologies. Topics include safety, hybrid transmissions, electric motors, batteries, and hybrid accessories. This course may be used as a general elective. Three class hours.  
Course offered Fall and Spring.  

ATP 171  General (A-TAP) Automotive Co-op I  
.5 Credits  
This is a 15-week co-op course in mechanical repair work experience for General (A-TAP) automotive students. (22.5 hours per semester). Course offered Fall and Spring.  

ATP 172  General (A-TAP) Automotive Co-op II  
.5 Credits  
This is a 15-week co-op course in mechanical repair work experience for General (A-TAP) automotive students. (22.5 hours per semester).  
Course offered Fall and Spring.  

ATP 173  General (A-TAP) Automotive Co-op III  
.5 Credits  
This is a 15-week co-op course in mechanical repair work experience for General (A-TAP) automotive students. 0.5 Credits (22.5 hours per semester).  
Course offered Fall and Spring.  

ATP 174  General (A-TAP) Automotive Co-op IV  
.5 Credits  
This is a 15-week co-op course in mechanical repair work experience for General (A-TAP) automotive students. (22.5 hours per semester). Course offered Fall and Spring.  

ATP 290  Independent Study  
Variable Credit  
See the Department Chairperson. Course offered Fall and Spring.  

BIO 114  Natural History of Greater Rochester  
3 Credits  
Teaches the basic biological concepts through an experience-based approach. Field trips will be held at local sites of geological and biological interest. Topics covered will include identification of woody plants, wildflowers, insects, birds and mushrooms; the ecology of fields, woods and wetlands; and bedrock and glacial geology. Two class hours, two laboratory hours. Course offered Fall and Spring.  

BIO 116  Introduction to Environmental Science  
3 Credits  
A course which deals with biological aspects of humans and their impact on the environment. Students will study ecological principles that govern the world and will examine current environmental problems and issues. They will develop a greater awareness of global interdependence and the role of individuals in affecting environmental issues. This course is designed for the career or non-science student. Two class hours, two laboratory hours. (SUNY-NS) Course offered Fall and Spring.  

BIO 117  Basic Consumer Nutrition  
3 Credits  
A lecture course that will present information on nutrients and their use by the body. Topics include digestion, usage of nutrients, consequences of nutrient deficiencies or excesses, energy production and analysis of individual diets. Current research is integrated into the course. Depending on program requirements, this course can meet both Food Service (FSA 117) or Natural Science (BIO 117) elective or course requirement. A student may earn credit for BIO 117 or FSA 117, but cannot earn credit for both courses because they are equivalent courses. Three class hours.  
Course offered Fall and Spring.  

BIO 118  Practical Botany  
3 Credits  
A basic course emphasizing the significance and use of plants. Studies include simplified plant anatomy and physiology, propagation, cultivation and use of plants for food, landscaping and other purposes. This course is designed for the career or non-science student. Two class hours, two laboratory hours. Course offered Spring only.  

BIO 120  Essentials of Life Science  
4 Credits  
An introduction to selected principles of the biological sciences explored through current topics in biology. Areas of study will include the organization of life, cell structure and function, DNA structure and heredity, biodiversity, evolution, and ecology. This course is designed for the career or non-science student. Three class hours, two laboratory hours. (SUNY-NS) Course offered Fall and Spring.  

BIO 123  Nutrition for Sport and Exercise  
3 Credits  
Sports nutrition combines the fields of nutrition and exercise physiology. The student will learn which type of foods, beverages, and/or supplements are needed for optimal performance in sporting events. The student will gain practical experience on how nutrition plays a role in how the body functions and performs during sporting events. Three class hours. Course offered Fall and Spring.  

BIO 128  Laboratory to Accompany Human Biology  
1 Credit  
Laboratory exercises in human anatomy and physiology to supplement BIO 133 class lectures and text information. BIO 128 is a late start, 10 week course that has 3 lab hours per week. NOTE: This course only meets SUNY General Education Natural Science requirements when both BIO 132 and BIO 133 are successfully completed.  
(SUNY-NS) Course offered Fall and Spring.  
Prerequisite or corequisite: BIO 133.  

BIO 132  Human Biology  
3 Credits  
A study of the structure and function of the human body. The cause and effects of certain diseases are also included. The course is designed for the career or non-science student. NOTE: Students who successfully complete BIO 132 may, with the addition of BIO 132, complete the requirement for SUNY Natural Science General Education (SUNY-NS). BIO 132 may be taken concurrently or in a later semester, but the student will not have satisfied the SUNY-NS requirement until both BIO 132 and BIO 133 are successfully completed. Three class hours in lecture/laboratory demonstration formats.  
Course offered Fall and Spring.  

BIO 134  Essentials of Human Anatomy and Physiology I  
3 Credits  
The study of the structure and function of cells (including metabolism), tissues, integument, and musculoskeletal, nervous, and sensory systems. Designed for students enrolled in the Dental Hygiene, Health Information Management, and Physical Education programs. Also open to interested Liberal Arts students with some biology background. Two class hours and three laboratory hours. (SUNY-NS) Course offered Fall and Spring.  
Prerequisite: High school Biology with a grade of C or better, or any laboratory-based Biology course numbered 120 or higher with a grade of C- or better, or permission of instructor.
BIO 135  Essentials of Human Anatomy and Physiology II  3 Credits
A continuation of BIO 134. Includes the study of the structure and function of the endocrine, cardiovascular, lymphatic, immune, digestive, urinary, and reproductive systems. Two class hours and three laboratory hours. (SUNY-NS) Course offered Fall and Spring. Prerequisite: BIO 134, or permission of instructor.

BIO 136  Introductory Forensic Science  4 Credits
This is an introductory natural science course designed for the non-science, primarily criminal justice, major. The course will cover those biological and chemical fundamentals necessary for the student to understand topics of instrumentation and techniques employed in a crime laboratory. Topics such as matter, atomic theory, chemical bonding, chromatography, hair and fiber examination, blood and drug analysis, toxicology, and DNA typing will be included. The laboratory will include demonstrations and hands-on activities of methods used to study chemical and biological evidence. This course complements the existing CRJ 209 course which emphasizes the investigative procedures involved at the crime scene. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall only. Prerequisite: MCC LEVEL 6 MATHEMATICS PLACEMENT OR MTH 098 WITH A MINIMUM GRADE OF C.

BIO 138  The Biology of Women  3 Credits
A lecture and discussion based course that focuses on the basic anatomy, physiology, and pathophysiology of the female. The course also includes discussions of common reproductive and post-reproductive problems and their treatments and addresses contemporary health issues for women. Three class hours. Course offered Fall and Spring. Prerequisite: BIO 133

BIO 142  Human Anatomy  4 Credits
The detailed study of the human organism at the tissue and organ system levels. The relationship between structure and function is covered with emphasis on structural relationships. Laboratory study includes microscope work along with substantial organ and animal dissection. The course is designed for students in Nursing, Radiologic Technology, and other health-related programs. Two class hours, one conference hour, three laboratory hours. Course offered Fall and Spring. Prerequisite(s): High school biology with a grade of C or higher, or any of the following with a grade of C or higher: BIO 120, both BIO 132 and BIO 133, or permission of instructor.

BIO 143  Human Physiology  4 Credits
An introduction to the major concepts of physiology as applied to the human organism. An integrated study of human physiology from the cellular to the system level with an emphasis on feedback systems. Laboratory work includes student and demonstration experiments designed to illustrate normal function and physiologic responses to specific stresses. The course is designed for students in Nursing and other health related programs. Three class hours and three laboratory hours. (SUNY-NS) Course offered Fall and Spring. Prerequisites: BIO 142 and one of the following: high school chemistry or CHE 100 or CHE 124 or permission of instructor.

BIO 144  Human Anatomy and Physiology I  4 Credits
The first course of a two-semester comprehensive study of the anatomy and physiology of the human body. Topics include body organization, homeostasis, cells and tissues, integument, skeletal system, muscular system, nervous system and special senses, and the endocrine system. Laboratory study includes microscope work, substantial organ and animal dissection, and experiments designed to illustrate normal function and physiologic responses to specific stresses. Designed for students in Nursing, Radiologic Technology and other health related programs. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring. A grade of C or better in a college Biology course with lab (BIO 120, BIO 132/133, BIO 155) or a C or better in high school Biology, in addition to a C or better in a college Chemistry course (CHE 100, CHE 124, CHE 145 or 151) or a C or better in high school Chemistry.

BIO 145  Human Anatomy and Physiology II  4 Credits
A continuation of BIO 144 and the comprehensive study of the anatomy and physiology of the human body. Topics include the cardiovascular system, lymphatic and immune system, respiratory system, digestive system, metabolism and energetics, urinary system, reproductive system, and fluid, electrolyte and acid/base balance. Laboratory study includes microscope work, substantial organ and animal dissection, and experiments designed to illustrate normal function and physiological responses to specific stresses. Designed for students in Nursing, Radiologic Technology and other health-related programs. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring. Prerequisite: BIO 144

BIO 148  Fundamentals of Biology and Inheritance  3 Credits
Principles of biology with an emphasis on cellular structure and function, genetics and population genetics. Topics will include cellular metabolism, molecular genetics, gene expression, Mendelian genetics and population genetics. This course is an introductory biology course for science-interested students. This course may also fulfill a natural science elective for science-interested students. Three class hours. PREREQUISITE: A grade of C or better in a college Biology course with lab.

BIO 149  Field Studies in Biology Variable Credit
This course is designed for students who wish to study a particular natural habitat or environment in a focused, hands-on, field setting. The majority of course work is completed in the field at a local or distant location depending upon the title and focus of the course for a given semester. Students will conduct field observations, record data, participate in design field experiments and construct a field notebook detailing all aspects of their field experience. Credit hours are variable depending upon the field experience offered. Additional fees for travel, lodging, food, and other field expenses may apply. (SUNY-NS) Course offered Fall only. Prerequisite: One Biology lab course preferred. Permission of instructor required.

BIO 150  Introduction to Biological Evolution  3 Credits
Introduction to the basic principles and concepts of the theory of evolution. Topics will include natural selection and other forces driving evolution, speciation, evolutionary genetics, hominid evolution, and major lines of evidence supporting the theory of evolution. Three class hours. Course offered Spring only.

BIO 155  General Biology I  4 Credits
Principles of biology with an emphasis on cellular structure and function, and organic evolution. Topics will include cellular metabolism, molecular genetics, gene expression, Mendelian genetics, natural selection and speciation. The laboratory features activities and experiments that reinforce the concepts presented in lecture. This course is the first in a two-semester sequence in introductory biology for science majors or science-interested students. This course may also fulfill a natural science elective for science-interested students. Two class hours, one conference hour, three laboratory hours. WR (SUNY-NS) Course offered Fall and Spring. Prerequisite: High school biology with a grade of B or better, or BIO 120 with a grade of C or better, and high school chemistry with a grade of C or better, or any college chemistry course with a grade of C or better, or permission of instructor.

BIO 156  General Biology II  4 Credits
Principles of biology with an emphasis on the diversity of life, the structure and function of plants and animals, and general ecological principles. The laboratory features activities and experiments that reinforce the concepts presented in lecture. This course is the second in a two-semester sequence in introductory biology for science majors or science-interested students. This course may also fulfill a natural science elective for science-interested students. Two class hours, one conference hour, three laboratory hours. WR (SUNY-NS) Course offered Fall and Spring. Prerequisite: BIO 155 with a grade of C- or higher.

www.monroecc.edu/go/courses
BIO 202  Microbiology  4 Credits  
A one term course for health professionals. A brief introduction to principles of general microbiology with major emphasis on control of microorganisms by physical and chemical processes. Medical microbiology including pathogenicity and epidemiology of infectious diseases, and immunology. Three class hours, two laboratory hours. Course offered Fall and Spring. Prerequisites: BIO 134 or BIO 143 or BIO 145 or BIO 155 or permission of instructor.

BIO 209  General Microbiology  4 Credits  
A survey of microorganisms: bacteria, viruses, rickettsia, protozoa, algae and fungi. Major emphasis is placed upon bacteria: classification, genetics, ecology, morphology, physiology, physical and chemical control and economic importance. An introduction to applications of microbiology to food and water analysis, industry and medicine, including principles of immunology and transmission of infectious diseases. This course is designed for the Liberal Arts or science-interested student. Three class hours, three laboratory hours. Course offered Fall and Spring. Prerequisites: BIO 156 as prerequisite or corequisite, and CHE 145 or CHE 151 with a grade of C- or better, or permission of instructor. Students who have completed BIO 156 with a grade below C- are advised to repeat BIO 156 before attempting BIO 209.

BIO 217  Nutrition  3 Credits  
The study of nutrients needed for healthy functioning of human beings and the biochemical functions of these nutrients in the body. The nutrient content of foods and its application to meal planning. Special nutritional needs of infants, pregnant women, nursing mothers and the elderly. The course is designed for students in Nursing, Dental Hygiene, Radiologic Technology, and other Health Related Programs. Three class hours. Course offered Fall and Spring. Prerequisite: BIO 135 or BIO 143 or BIO 145 or permission of instructor.

BIO 221  Principles of Biochemistry  4 Credits  
A study of the major chemical constituents of cells including proteins, carbohydrates, lipids and nucleic acids. Structure and function will be emphasized. Enzyme kinetics, regulation of enzyme activity, and metabolic pathways will also be covered. Labs include buffer preparation, protein and enzyme assays, lipid analysis, and the isolation and characterization of enzymes and nucleic acids. Fall semester only. Three class hours, three laboratory hours. Course offered Fall only. Prerequisites: BIO 156 with a grade of C- or better, and CHE 151 with a grade of C- or better, or permission of instructor.

BIO 225  Bioanalytical Techniques I  4 Credits  
An introduction to the principles and methods of analytical technique as they relate to quantitative measures of determination. Laboratory experiments include instruction in the use of balances and volumetrics, spectrophotometric analysis, and a variety of titrimetric methods. Fall semester only. Three class hours, three laboratory hours. Prerequisite: CHE 151 or permission of instructor.

BIO 226  Bioanalytical Techniques II  4 Credits  
An in-depth study of the theory and practice of separation techniques that would be employed in the isolation and purification of biomolecules such as proteins, enzymes, and nucleic acids. Laboratory experiments involve immunology, chromatography, electrophoresis, and blotting techniques (western and southern blots). Three class hours, three laboratory hours. Course offered Spring only. Prerequisite: BIO 156 with a grade of C- or better or BIO 225, or permission of instructor.

BIO 227  Biotechnology Seminar  1 Credit  
A discussion based capstone course that will integrate the topics and concepts of the Biotechnology Program. Emphasis will be on applications of biotechnology, current issues, societal/ethical concerns, and laboratory management. One class hour. Course offered Spring only. Corequisite: BIO 226

BIO 230  Molecular Genetics  4 Credits  
A study of the transmission of genetic information with emphasis on the structure and function of nucleic acids. The genetics of prokaryotes, eukaryotes and viruses will be covered. The molecular basis of replication, repair, recombination, and gene expression will also be examined. Lab experiments introduce a variety of molecular biology techniques such as replica plating, bacterial conjugation and transformation, the isolation and restriction enzyme cleavage of plasmid DNA, and restriction mapping. Three class hours, three laboratory hours. Course offered Spring only. Prerequisites: BIO 156 with a grade of C- or better and CHE 151 with a grade of C- or better, or permission of instructor.

BIO 235  Pathophysiology  3 Credits  
An introductory course for students in health related disciplines designed to facilitate further learning in their areas of specialization and promote effective interactions as members of the health care team. The course provides an overview of human diseases, their frequency, significance, diagnosis and treatment. The course moves from basic pathological processes to diseases by organs or organ systems to multiple system diseases and associated processes. Three class hours. Course offered Fall only. Prerequisites: BIO 135, or BIO 143, or or BIO 145 or permission of instructor.

BIO 242  Human Dissection  1 Credit  
For students in programs leading to a degree in an allied health field. Careful dissection of the human body by students under faculty supervision will be used to reinforce and enrich the student's study of anatomy. Students gain experience in making educated decisions concerning the dissection, as well as in dissection technique and identification of human anatomical structures. Three laboratory hours. Course offered Spring only. Prerequisite: BIO 142 and permission of the instructor.

BIO 252  Topics in Biology Seminar  1 Credit  
A discussion based seminar course that will integrate and apply biological concepts. Emphasis will be on discussing current scientific issues, library/internet instruction and research, student presentations, and developing technology and teamwork skills. One class hour. Course offered Spring only. Prerequisite: BIO 156 with a grade of C- or better and one 200 level Biology course with a grade of C- or better, or permission of instructor.

BIO 260  General Ecology  4 Credits  
An introduction to the interactions between living organisms and their physical, chemical and biological environment. Several levels of ecological organization are examined. These include the study of different types of populations, communities and ecosystems. Topics include population structure and growth, species interaction, energy flow, nutrient cycling, succession, and applications to current environmental management issues. Students perform ecological experiments in the field as well as in the laboratory. Two class hours, one conference hour, three laboratory hours. Course offered Fall only. Prerequisite: BIO 155 with a grade of C- or better, or permission of instructor.

BIO 265  Comparative Vertebrate Anatomy  4 Credits  
A study of vertebrate structure, function and evolution. Relationships between the structural and functional adaptations of the different vertebrate groups and their environment are examined. The laboratory features dissections and experiments that illustrate these adaptations in both aquatic and terrestrial vertebrates. Two class hours, one conference hour, three laboratory hours. Course offered Spring only. Prerequisite: BIO 156 with a grade of C- or better, or permission of instructor.

BIO 266  Biology of Vascular Plants  4 Credits  
This course covers major groups of living vascular plants, evolutionary origins of plants and their phylogenetic relationships. Includes anatomy, physiology, and reproductive patterns. This course is designed for science majors and students interested in plant science. Two class hours, one conference hour, three laboratory hours. Course offered Spring only. Prerequisite: BIO 156 with a grade of C- or better, or permission of instructor.
BUS - Business

BUS 104 Introduction to Business 3 Credits
An introductory study of business including organizational forms, the function of production, finance, marketing and human resources. Additional topics will be environmental factors which impact business such as government business ethics and current business issues. Three class hours. Course offered Fall and Spring.

BUS 110 Entrepreneurial Studies I 3 Credits
First of two small business courses designed for those interested in learning how to start and manage a small business. It begins by defining and explaining the nature of small business in today’s economy and entrepreneurs in the context of the free enterprise system. The topics include small business opportunities, legal forms of ownership, franchising, starting a new venture, sources of financing, developing marketing strategies and human resource management. Students will also learn the key components of a business plan, review case studies, and undertake a major project. Three class hours. Course offered Fall and Spring.

BUS 135 Supervising for the 21st Century 3 Credits
This course is designed to teach supervisors the concepts and skills they need to manage work and lead people in a diverse workforce. Its emphasis is on planning, problem-solving, communication, decision making, and employee motivation skills through the practical application of these concepts. It includes practice in hiring, training, performance appraisal, meetings, time management, and compliance with government regulations for equal opportunity, safety, and health. Three class hours. Course offered Fall and Spring.

BUS 200 Legal Environment of Business 3 Credits
This course is a study of laws relevant to the non-lawyer business professional. It includes such basic legal topics as court systems, stages of a lawsuit, torts, real property and contracts, as well as such business-specific topics as intellectual property, consumer law, criminal law of businesses, antitrust law, environmental law, and regulations adopted by government agencies. This course is required for A.A.S. students in Entrepreneurial and A.S. students in Accounting: General. Course not recommended as a Business Elective for students enrolled in A.S. programs in Business Administration or International Business. Three class hours. Course offered Fall and Spring.

BUS 201 Business Law I 3 Credits
A study of legal principles applied to business transactions. Topics covered include: contracts, criminal law and business, business torts, court systems, and commercial paper. This course is required for A.S. students in Business Administration and A.S. students in International Business. Three class hours. Course offered Fall and Spring.

BUS 202 Business Law II 3 Credits
A continuation of BUS 201 of the study of legal principles applied to business transactions. Topics covered include: corporations, limited liability companies, partnerships, agency, franchises, bankruptcy, real property, personal property, sales, and secured transactions. Three class hours. Course offered Spring only.

BUS 204 Management: Theory and Practice 3 Credits
A study of the theories and practices that are used in the organization and management of profit and non-profit business and institutions. Topics will include planning, decision making, organizing, staffing, leading and controlling. Three class hours. Course offered Fall and Spring. Prerequisite: BUS 104 with a grade of C or higher

BUS 207 Human Resources Management 3 Credits
An introduction to the principles, practices, and techniques used in the development and implementation of an effective Human Resources/Personnel Management program. The course includes a discussion of employment, training, compensation, labor relations, health and safety and federal laws governing human resource management. Three class hours. Course offered Fall and Spring.

BUS 208 Organizational Behavior 3 Credits
Organizational behavior provides a conceptual and experiential basis for motivating and coordinating people to manage change in organizations. This course is intended for those who want to develop the tools for understanding, analyzing and changing the work behaviors of individuals and groups in an increasingly diverse workforce. It will use a combination of exercises, self-assessment techniques, cases and role plays to develop insights that facilitate self-knowledge and teamwork in a dynamic global environment. Three class hours. Course offered Fall and Spring. Prerequisite: BUS 104 with a grade of C or higher

BUS 210 Entrepreneurial Studies II 3 Credits
Second of two courses designed for those interested in learning how to start and manage a small business. It builds on the preceding course concerning the establishment of the small business and deals with management of the on-going venture. This course takes a functional approach to managing the small business through a discussion of more advanced topics including entrepreneurial characteristics, financial planning and control, business operations, risk management, regulations, business valuation and succession issues, and other current topics. Students will develop a business plan. Three class hours. Course offered during the Spring only during the evening. Prerequisite: BUS 110 with a grade of C or higher, or permission of the instructor.

BUS 220 Applied Business Applications 3 Credits
A case study approach to the use of office productivity software to solve business problems and manage business processes. Emphasis will be on the use of spreadsheet and database applications to analyze data. Word processing and presentation software will be used to document and present solutions. Several major projects will be assigned to be completed outside of class. Each student will create a semester-long portfolio of related work. Basic knowledge of the PC, keyboard, and mouse are required. Two class hours, two lab hours. Course offered Fall and Spring. Prerequisite: BUS 104 with a grade of C or higher

BUS 225 MCC Business Collaborative 4 Credits
An upper level, experiential business course that will provide a select group of learners hands-on experience at Rochester area businesses. The course will include on-site presentations from business executives, work on actual company projects, and classroom discussions of real business issues and challenges. The class is presented in a hybrid format. Two class hours, two conference hours. Course offered Fall and Spring. Prerequisite: 15 hours of Business electives, including BUS 104 and permission of instructor.

BUS 250 International Management and Marketing 3 Credits
This seminar has been designed to provide students with an opportunity to develop knowledge and understanding of the processes, procedures and challenges that arise in conducting business across national borders. Representatives from business or government involved in international trade will be invited to present information and conduct a discussion in various areas of international business expertise. This course is intended for students who are in the last semester of the degree program. Spring semester only. Three class hours. Course offered Spring only. Prerequisites: BUS 104, MAR 200, ECO 111, ECO 112, ACC 101, ENG 101, Three credits of foreign language, SOC 150 and GEG 211 or permission of instructor. SOC 150 and GEG 211 can be taken concurrently. Students in business programs other than International Business are not required to have the foreign language, SOC 150 and GEG 211 prerequisites for this course. Please contact the course instructor or department chair before registering for the course to discuss course expectations.
BUS 275 Business Cooperative Education  4 Credits
This cooperative education course is limited to students enrolled in Business and Computer Information Systems AAS degree programs. Students who work or desire to work either full time or part time at jobs related to their college major (AAS Accounting, AAS Computer Information Systems, AAS Entrepreneurial Studies) are eligible for this course. Students take a career-related classroom seminar for two hours each week while working a minimum of 180 hours during the semester at a job in the area of their degree program. Successful completion of the seminar and a minimum of 180 hours of work experience in any one semester entitle a student to receive four credit hours. This will be one of the last business courses that a student will take. The classroom seminar and work experience will provide a practical application of the student’s academic experiences and tie the skills and competencies that the student has learned to a work experience. This course will assess the student’s understanding and command of academic learning in the degree program and gauge how well the student is prepared for the work force in their specific field. Two class hours each week, 180 hours of work experience during the semester. Course offered Fall and Spring as a Hybrid.
Prerequisite: Prerequisite for AC01: 30 credits or more with a cumulative 2.0 GPA and the following courses: ACC 101, BUS 104 with a grade of C or higher, CRC 125 or BUS 220, ECO 101 (or ECO 111), ENG 101 and review and approval of coop job placement by the Office of Experiential and Adult Learning.
Prerequisite for CE01: 30 credits or more with a cumulative 2.0 GPA and the following courses: ACC 101, BUS 104 with a grade of C or higher, BUS 220, CIS 101 (or CSC101), CIS 110, ENG 101 and review and approval of coop job placement by the Office of Experiential and Adult Learning.
Prerequisite for EP01: 30 credits or more with a cumulative 2.0 GPA and the following courses: ACC 130 (OR ACC 101), BUS 104 with a grade of C or higher, BUS 220, ECO 101 (or ECO 111), ENG 101, MAR 200, and review and approval of coop job placement by the Office of Experiential and Adult Learning.

BUS 290 Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

CDL - Interdisciplinary

CDL 100 Career Development and Life Planning  1 Credit
This course introduces students to the elements of career decision-making with emphasis on the process of career and life planning. It is designed for students who are interested in learning more about themselves and their career choices. Whether you are undecided about your career, making a career change or exploring your career options, this course will help you become more self aware and provide you with a foundation to build your career path. Includes a writing component related to personal experience. One class hour. Course offered Fall and Spring.
Prerequisite/Corequisite: TRS 105 recommended.

CDL 101 Career and Life Planning for Returning Adult Students  2 Credits
An in-depth examination of the elements in career decision-making with emphasis on the process of career and life planning for the returning adult student. Topics include life renewal, functional learning, skills assessment, values, interests, decision-making, goal-setting, and the world of work. Thirty class hours per semester. Course offered Fall only.

CDL 102 Career and Life Planning for Undeclared Students  2 Credits
This experiential course introduces students to the elements of career decision-making with emphasis on the process of career and life planning. It is designed for students who are interested in learning more about themselves and their career choices. The career development needs of undeclared students will be emphasized through a multi-phase approach including self-exploration, decision-making strategies, career exploration, career counseling, and career planning. Career forums featuring professionals from various career areas will be included. One class hour, one conference hour. Course offered Fall and Spring.

CDL 110 Career and Life Planning for Undeclared Students - Part-Time  4 Credits
This course introduces students to the elements of career decision-making with emphasis on the process of career and life planning. It is designed for students who are interested in learning more about themselves and their career choices. The career development needs of undeclared students will be emphasized through a multi-phase approach including self-exploration, decision-making strategies, career exploration, career counseling, and career planning. Career forums featuring professionals from various career areas will be included. One class hour, one conference hour. Course offered Fall and Spring.

CDL 115 Job Search Strategies  1 Credit
A comprehensive job search strategies course involving skills assessment, resume and cover letter development, networking, interviewing techniques, employment applications, and the use of Internet resources for research and the job search process. One class hour.
Course offered Fall and Spring.
Prerequisite: ENG 101

CE - Cooperative Education

Most Cooperative Education courses are housed in their respective disciplines. Those CE course descriptions which do not appear below can be located under the discipline noted:

CE 255 Cooperative Education-Disney World  6 Credits
This course teaches students how to market skills such as communication, customer service, problem solving, conflict resolution, decision making, self-management, and creative thinking. Key elements of the course include the development of a 30-second commercial, cover letter, resume, and networking strategy. The students will also learn interviewing and negotiation techniques. Two class hours, forty experiential hours. Course offered Fall and Spring.

CE - Hospitality

CE 260 Cooperative Education-Hospitality Management  4 Credits
Students who work or desire to work, either full time or part time at jobs related to their college major or career interests are eligible for Cooperative Education. Students take a career-related classroom seminar (2 hours per week on campus or online) while working at a job (180 hours per semester) in the area of hospitality management. Successful completion of the seminar, and a minimum of 180 hours of work experience in any one semester, entitles a student to receive four credit hours. The Experiential and Adult Learning Office, located in Rm. 3-109E, will assist in obtaining jobs. A student’s present job may qualify. Appropriate work experience must be approved by the instructor. Individuals must have completed 24 credit hours, with a 2.0 GPA. Exceptions permitted with permission from the instructor. Course offered Fall and Spring.
CE - Interior Design

CE 263  Cooperative Education-Interior Design  4 Credits

Students who work or desire to work either full time or part time at jobs related to their college major or career interests are eligible for Cooperative Education. Students take a career-related classroom seminar (2 hours per week on campus) while working at a job (180 hours per semester) in the area of Interior Design. Successful completion of the seminar, and a minimum of 180 hours of work experience in one or more semesters entitles a student to receive four credit hours. Working an additional 180 hours (no seminar requirement) and meeting certain other prerequisites allows a student to earn two more credit hours for a total of six credit hours, the maximum possible on a Co-op program. (The Department Chair and the Co-op Director must approve a student’s working toward the additional two credits.) The Co-op Office, located in 3-108E, will assist in obtaining jobs. Present job may qualify. Appropriate work experience must be approved by the Interior Design Coordinator/Instructor. Open to all Interior Design majors who have completed 24 credit hours with a 2.0 GPA. Exceptions by permission of the instructor. Course offered Fall only.
Prerequisite:  IDE 201

CE 200  General Internship  3 Credits

Designed to give a student the opportunity to test his or her career choice by working off campus either in a for-profit or not-for-profit organization. Having studied theories and principles in previous course work, the intern is able to use the knowledge gained in an actual work environment. Concurrently with the work experience, students are required to attend a series of seminars where they will deal with problems and issues related to their work experience. Students will be responsible for working a minimum of nine hours a week throughout the semester (15 weeks). The program is intended to serve students who have completed at least 24 credit hours of college work (including sufficient hours in their major to make them employable) and have at least a 2.5 GPA. Course offered Fall and Spring.
Prerequisites: 2.5 GPA and Permission of the Experiential and Adult Learning Office.

CE 100  Preparatory Chemistry  4 Credits

This course meets the pre-admission chemistry requirement for selected health related programs. It is also recommended to students with limited mathematics and/or science background who plan to take higher level chemistry courses such as [CHE 121] CHE 124 or 145. Topics include dimensional analysis, atomic structure, nomenclature, bonding, reactions, chemical calculations, periodicity, states of matter, solutions, acids, bases, and the pH concept. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring.
Prerequisite: MCC level 6 Mathematics placement or MTH 098 with a minimum grade of C.

CHE 110  The Chemistry of Indulgence  3 Credits

Designed for non-science majors, this course does not require a background in chemistry or math. This class provides an integrated laboratory/lecture experience as students explore various principles of chemistry using everyday contexts such as food. Two class hours, two laboratory hours. (SUNY-NS) Course offered Fall and Spring.
Prerequisite: MCC Level 6 Mathematics placement or MTH 098 with a minimum grade of C.

CHE 115  Special Topics in Chemistry  Variable Credit

This course is intended to address specific topics of interest in chemistry. Polymer Chemistry, Analytical Chemistry, Instrumentation/Spectroscopy, and Environmental Chemistry are a few examples of possible course offerings. Subject matter may change from semester to semester based on faculty and student interest. Primarily lecture format, but a laboratory component may be included. 1-4 credits. Course offered Fall and Spring.
Prerequisite(s): MTH 098 WITH A GRADE OF C OR BETTER OR MATHEMATICS PLACEMENT AT LEVEL 6.
CHE 145 Preparation for General College Chemistry 4 Credits
This course should be taken prior to CHE 151 by students who fall into one of the following categories provided they have adequate mathematics preparation (see prerequisite and recommendation below): (a) students with no previous background in chemistry, (b) students with an average or below average background in high school chemistry, or (c) students in need of a review of basic chemical problem solving skills. Topics include problem solving using the factor-label method, dimensional analysis, linear relationships, graphing, and significant figures; the atomic mass system and the mole concept; chemical formulae and inorganic nomenclature; basic chemical reactions, balancing equations, reaction stoichiometry, and limiting reagent problems; atomic structure and the principles of chemical bonding; solution concentrations and stoichiometry. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring. Prerequisite: CHE 145 with a minimum grade of C- or concurrent registration in MTH 165 is strongly recommended.

CHE 151 General College Chemistry I 4 Credits
This is the first semester of college chemistry and is appropriate for students interested in pursuing further studies in science or engineering. It is a mathematical approach to the principles of chemistry and assumes that students have had an above average preparation in chemistry. Topics include a brief review of problem solving using dimensional analysis, graphing, and significant figures; chemical stoichiometry; gas laws; thermochemistry; an in-depth treatment of atomic structure, periodicity, and chemical bonding; phase relationships. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring. Prerequisite(s): CHE 145 with a minimum grade of C or Chemistry Regents exam grade of 70 or higher (or equivalent for students who did not attend New York State Public School); and MCC level 9 Mathematics placement or concurrent registration in MTH 165 with a minimum grade of C.

CHE 152 General College Chemistry II 4 Credits
A continuation of CHE 151. Topics include: solution concentrations and properties; chemical kinetics; gas and solution phase chemical equilibrium including solubility; acids; and bases; thermodynamics; electrochemistry. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring. Prerequisite: CHE 151 with a minimum grade of C.

CHE 251 Organic Chemistry I 5 Credits
A modern treatment of organic chemistry which integrates fact and theory. The study of structure and its relation to properties, reactions, and reaction mechanisms is emphasized. Both aliphatic and aromatic compounds are studied in the first semester along with an introduction to stereochemistry and conformational analysis. The laboratory experiences include syntheses of a variety of organic compounds with an emphasis on basic laboratory techniques. The fundamental techniques of infrared spectroscopy and gas chromatography are also introduced. Fall semester only. Three class hours, four laboratory hours. Course offered Fall only. Prerequisite: CHE 152 with a grade of C- or higher.

CHE 252 Organic Chemistry II 5 Credits
A continuation of the study of different classes of organic compounds. The interpretation of infrared and nuclear magnetic resonance spectra is emphasized. The laboratory is a continuation of CHE 251 laboratory with an extensive introduction to qualitative organic analysis. Spring semester only. Three class hours, four laboratory hours. Course offered Spring only. Prerequisite: CHE 251 with a grade of C- or higher, or permission of the instructor.

CHE 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

CHI - Chinese/Foreign Language

CHI 101 Elementary Chinese I 3 Credits
Designed for students with little or no previous experience in the language. Focuses on communicative skills of listening comprehension and speaking, and in developing mastery of the Chinese writing system for basic reading and writing of simple sentences and short paragraphs. Pin yin and Chinese characters are taught so that students will be able to communicate both orally and in written form in the most essential everyday life situations. Students will also learn Chinese customs, traditions, and culture. Three class hours. (SUNY-FL) Course offered Fall and Spring.

CHI 102 Elementary Chinese II 3 Credits
A continuation of CHI 101 with emphasis on basic language skills for communication and on cultural aspects to promote understanding and appreciation of the Chinese culture. Three class hours. (SUNY-FL) Course offered Spring only. Prerequisite: CHI 101, the equivalent or permission of the instructor. Memory and length of time since last studied are factors in successful placement.

CHI 103 Intermediate Chinese I 3 Credits
Continued study in Chinese for those with a firm foundation in elementary Chinese communication, written and oral. Grammar and vocabulary are continued at a higher level so that the student develops strong reading and writing skills in order to create complex sentences and short paragraphs. In this class, the student will attain oral and listening skills to successfully function in a variety of daily situations. Cultural topics are included in the study of grammar and structure. Memory and length of time since last studied are factors in successful placement. Three class hours. (SUNY-FL) Course offered Fall and Spring. Prerequisite: CHI 102, or successful completion of equivalent, or permission of the instructor.

CHI 221 Chinese Culture on Location 3 Credits
This course is designed to provide the opportunity to see and experience the richness of China through the unique experience of travel. The core part of this course will be a stay in the country, with visits to the main cities and cultural centers. Class meetings prior to the trip will focus on topics that will help the student to prepare for the experience, and meetings after the trip will provide a time for debriefing, reporting, evaluation and assimilation. The student is expected to complete ten tasks during his/her stay, make an oral presentation, and prepare a portfolio of the trip. This portfolio can be a personal journal, photo display, video recording, or a combination thereof. Three class hours; a total of 35 experiential hours. Course offered Fall and Spring.

CIN - Cinema Studies

CIN 120 The Movies 3 Credits
A survey of the development of motion pictures from 1896 to the present. Emphasis on prominent directors, film genres, stars, and techniques of silent and sound eras; screenings and analysis of selected films. Three class hours. (SUNY-H) Course offered Fall and Spring.

CIN 121 Cinema Comedy 3 Credits
A study of the key figures in motion picture history, and the films they made. Focus will be placed on the great directors, actors, producers and screenwriters of the comedy genre. Three class hours. Course offered Fall only.

CIN 122 Cinema Drama 3 Credits
A study of the key figures in motion picture history and the films they made. Focus will be placed on the great directors, actors, producers, and screenwriters of the dramatic cinema genre. Three class hours. Course offered Spring only.

CIN 221 The Movie Business 3 Credits
Movies are a mass medium that has evolved from two art forms: the theatre and photography. But almost from the very beginning, the movies became a commercial enterprise with movie-making following an assembly line model of production. In order to fully understand the movies, students must understand the business that shapes almost all aspects of the process. This course will provide an overview to the business aspects of the movie industry. Specifically, topics will include financing, domestic/global marketing, distribution and exhibition. Three class hours. Course offered Fall only. Prerequisite: CIN 120.
CIN 222  Topics in Cinema and Screen Studies  
3 Credits
This course will vary each time it is offered. Examples of topics that may be taught are the examination of the independent film movement, race and gender in movies and television, international cinema, criticism of movies and television, delivery systems for the moving image, the documentary, film noir, and the movie star. Three class hours. Offered Fall and Spring Semesters. Course offered Spring only. 
Prerequisite: CIN 120 or permission of instructor.

CIN 290  Independent Study  
Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

CIS - Computer Information Systems

CIS 100  Information Processing Fundamentals  
4 Credits
This is an introductory course in digital computers and information processing concepts. The focus of this course will be on key components of information systems - people, software, hardware, data, and communication technologies, and how these components can be integrated and managed to create competitive advantage. Additional topics include computer terminology, networks, the Internet, numbering systems, working with operating systems that use graphical user interface (GUI) and command-line interface, algorithm and program development, pseudo code and flow charting. Students will develop professional communication skills while working in collaborative teams. Students will meet in a networked PC classroom for lab and will be assigned projects to be completed outside of class and laboratory time. Successful completion of this course with a grade of C or better is required for further progress in Computer Information Systems degree programs. Three class hours, two laboratory hours. Course offered Fall and Spring. 
Prerequisite(s): CIS 100 or CPT 114, either with a grade of C or better.

CIS 200  Programming for Information Systems  
4 Credits
This is a first course in object-oriented programming for the computer information systems student. Emphasis will be placed on problem analysis, documentation, and developing a program to meet given specifications. Topics include: classes and objects, properties and methods, variables, user-defined constants, explicit data type conversions, input validation and exception handling, calculations, sequence, selection, and repetition control structures, built-in and user-defined procedures with parameter passing, one-dimensional arrays, collections, sequential file processing, and database processing. Students will complete several coding assignments during class and lab to reinforce and apply concepts. Major programming projects will be assigned to be completed outside of lab and class. Three class hours and two lab hours. Course offered Fall and Spring. 
Prerequisites: CIS 100 or CPT 114, either with a grade of C or better.

CIS 201  Introduction to Web Site Programming and Design  
3 Credits
This course will provide the student with an introduction to programming and design concepts used in developing a Web site. Topics include coding HTML, Cascading Style Sheets, accessibility, programming with JavaScript, multimedia and interactivity, search engine optimization, domain name and web host selection, file transfer protocols, and implementation on a server. Students will develop an interactive, multi page Web site as a portfolio project. Two class hours, two laboratory hours. Course offered Fall and Spring. 
Prerequisites: CIS 200, CSC 101, or CPT 110 with a grade of C or higher.

CIS 209  Systems Analysis and Design  
3 Credits
A study of the skills required to perform the role of systems analyst. Emphasis will be placed on developing these systems analyst skills as they apply to the designing, developing and implementing business application software that runs on large mainframe to client-server systems. Topics include: project management tools, sampling and investigating hard data, questionnaires, observations, prototyping, developing UML diagrams to graphically depict a system, developing process specifications, designing effective input and output, developing an E-Commerce based business, database design with normalization, and designing effective user interfaces. Students are expected to work on a team project during the entire semester to develop and present a system proposal to the class. Two class hours and three lab hours. Course offered Fall and Spring. 
Prerequisite: CSC 101 or CIS 101 with a grade of C or better.

CIS 211  Applied Database Concepts  
3 Credits
A sound introduction to database concepts with Microsoft Access. Emphasis will be on using Access to build and maintain relational databases. The student will create databases, queries, custom forms, and reports, use macros and modules using the Visual Basic for Applications for programming languages and SQL. Two class hours, two laboratory hours. Course offered Fall only. 
Prerequisites: Prerequisites: CSC 101 or CIS 101 with a grade of C or better.

CIS 221  Applied Database Concepts with an Oracle Database  
3 Credits
A sound introduction to database concepts using the database Oracle. Emphasis will be on using Oracle to build and maintain relational databases. The student will create databases, queries, custom forms and reports, and use PL/SQL. Two class hours and two lab hours. Course offered Spring only. 
Prerequisite: CSC 101 or CIS 101 with a grade of C or higher

CIT 101  Surveying  
4 Credits
An introduction to plane surveying techniques, including distance measurement, note keeping, leveling, angle measurement, care and use of instruments, traversing, stadia, topographic surveys, and mapping. Three class hours, three laboratory hours. Course offered Fall only. 
Prerequisite/corequisite: MTH 135

CIT 112  CAD for Construction  
2 Credits
Applications in this course will include roof truss, concrete and steel reinforcing, welding, site plans, contour lines, property lines, DOT highway plans, piping plans, and bridge plans. One class hour, three laboratory hours. Course offered Fall and Spring.

CIT 122  Construction I: Elements of Building  
4 Credits
The study of the materials, methods and techniques used in building construction projects. The course will cover the construction process from idea conception to project closeout, including building and material codes, materials and methods, material quantity surveys, and construction procedures. Primary emphasis will be on structural steel, reinforced concrete, masonry, wood, and combined structural systems. Also included will be building exterior and interior finishing systems. The laboratory includes a study of the methods and techniques used in
blueprint reading for building construction. It will cover the use of construction drawings, scales, orthographic views, symbols, sections, and graphical interpretation, specific to the building construction industry to include structural steel detailing, reinforced concrete detailing, masonry sections, wood sections, and schedules for interior finishes and accessories. Three class hours, two laboratory hours. Course offered Fall and Spring.  
Prerequisite/corequisite: MTH 135

CIT 123 Construction II: Heavy, Highway and Site Construction 4 Credits
The study of the materials, methods and techniques used in site work, highway, utility, and other heavy construction projects. The primary emphasis is construction equipment selection, production calculations, and material handling. Topics will include site layout, aggregates and soils classifications, earthmoving basics, cranes and lifting equipment, concrete and asphalt production and paving. The study of the methods and techniques used in blueprint reading for heavy, highway, and site construction. The laboratory will cover the use of construction drawings, scales, orthographic views, symbols, sections, and graphical interpretation, specific to the heavy and highway construction industry to include topographic maps, profiles, engineering scales, and cross sections. Three class hours, two laboratory hours. Course offered Spring only.  
Prerequisite: CIT 122 or permission of instructor.

CIT 202 Route Surveying 4 Credits
Horizontal and vertical curves, spirals, sight distance, staking out a highway. Earthwork including cross-sections, areas, volumes, borrow pits. Three class hours, three laboratory hours. Course offered Spring only.  
Prerequisite: CIT 101.

CIT 204 Strength of Materials 3 Credits
Study of stress, strain, bolted, riveted and welded joints, centroids, shear, moments, designing of beams and columns. Demonstrations by instructor and some tests performed by students on various materials such as steel, timber, cast iron and aluminum. Two class hours, two laboratory hours. Course offered Fall and Spring.  
Prerequisite: MET 203

CIT 205 Structural Design 4 Credits
Design, investigation, and crafting of elementary reinforced concrete and structural steel members including rectangular beams, T-beams, columns, foundations, retaining walls, prestressed concrete, steel plate girders and columns, welded and bolted connections. Three class hours, three laboratory hours. Course offered Spring only.  
Prerequisite: CIT 204.

CIT 206 Soil and Concrete Testing 4 Credits
The study and laboratory testing of soils and concrete. Topics include the nature of soils, soil testing, plain concrete, asphalt concrete, and aggregates. The laboratory covers field and lab tests including soil and aggregate graduation, specific gravity, soil compaction, soil liquid limit and plastic limit, soils shear, concrete proportioning, slump, air content, compression testing and inspection. Three class hour, three laboratory hours. Course offered Fall only.

CIT 210 Highway Technology 3 Credits

CIT 217 Construction Management 4 Credits
An introduction to basic construction management and organization. Topics include project organization, staffing, labor relations, planning, critical path scheduling, integrated job cost control, production control, and job site safety. Three class hours, one conference hour. Course offered Spring only.  
Prerequisites: CIT 222, 232; prerequisites/corequisites: CIT 221, 232

CIT 219 Specimen Procurement and Processing 1 Credit
This course is an introduction to the collection and processing of patient specimens for clinical laboratory testing. The primary emphasis is venipuncture technique and its importance in sample quality. Other topics include communication skills, quality assurance, safety and infection control procedures, applicable medical terminology, capillary blood collection, collection of specimens other than blood, and specimen handling. Three laboratory hours. Course offered Spring only.  
Prerequisite: CLT 100 and any one of BIO 134, BIO 142, BIO 144, or permission of instructor.

CIT 100 Introduction to Medical Laboratory Technician 2 Credits
This course is an overview of the Health Care System with an emphasis on the profession of Medical Laboratory Technology. The course covers the training and continuing education of Health Care workers and outlines the roles Clinical Laboratory Technicians/ Medical Laboratory Technicians play as part of the health care team. The student will describe the history and current practices relative to education, governance and common practice in the clinical laboratory field. The student will be able to discuss and demonstrate safety, values, ethics and interpersonal interactions as related to Laboratory Science. Two class hours. Course offered Fall only.

CIT 110 Specimen Procurement and Processing 1 Credit
An introduction to the collection and processing of patient specimens for clinical laboratory testing. The primary emphasis is venipuncture technique and its importance in sample quality. Other topics include communication skills, quality assurance, safety and infection control procedures, applicable medical terminology, capillary blood collection, collection of specimens other than blood, and specimen handling. Three laboratory hours. Course offered Spring only.  
Prerequisite: CLT 100 and any one of BIO 134, BIO 142, BIO 144, or permission of instructor.

CIT 122, 123; prerequisites/corequisites: CIT 221, 232

CIT 221 Cost Estimating 3 Credits
An introduction to cost estimating of a construction project. Topics include generating preliminary cost estimates from early phase design drawings and specifications, and estimating techniques used to prepare a final bid for a project, including quantity take offs, material pricing, and labor costs. Three class hours. Course offered Spring only.

CIT 222, 232; prerequisites/corequisites: CIT 221, 232

CIT 223 Construction Contracts and Specifications 2 Credits
This course will cover the application of the construction contracts, drawings, and specifications to the construction process. It will cover the role construction documents play as a communication tool for understanding the roles and responsibility of the construction parties. It will follow both the CSI (Construction Specification Institute) and the NYSDOT (New York State Department of Transportation) formats. Two class hours. Course offered Spring only.  
Prerequisites: CIT 122, CIT 123 or permission of instructor; corequisite: CIT 217.

CIT 219 Specimen Procurement and Processing 1 Credit
This course is an introduction to the collection and processing of patient specimens for clinical laboratory testing. The primary emphasis is venipuncture technique and its importance in sample quality. Other topics include communication skills, quality assurance, safety and infection control procedures, applicable medical terminology, capillary blood collection, collection of specimens other than blood, and specimen handling. Three laboratory hours. Course offered Spring only.  
Prerequisite: CLT 100 and any one of BIO 134, BIO 142, BIO 144, or permission of instructor.

CIT 220, 232; prerequisites/corequisites: CIT 122, 123

CIT 220 Route Surveying 4 Credits
Horizontal and vertical curves, spirals, sight distance, staking out a highway. Earthwork including cross-sections, areas, volumes, borrow pits. Three class hours, three laboratory hours. Course offered Spring only.  
Prerequisite: CIT 101.

CIT 221 Specimen Procurement and Processing 1 Credit
This course is an introduction to the collection and processing of patient specimens for clinical laboratory testing. The primary emphasis is venipuncture technique and its importance in sample quality. Other topics include communication skills, quality assurance, safety and infection control procedures, applicable medical terminology, capillary blood collection, collection of specimens other than blood, and specimen handling. Three laboratory hours. Course offered Spring only.  
Prerequisite: CLT 100 and any one of BIO 134, BIO 142, BIO 144, or permission of instructor.

CIT 122, 123; prerequisites/corequisites: CIT 220, 232

CIT 222, 232; prerequisites/corequisites: CIT 220, 232

CIT 223 Construction Contracts and Specifications 2 Credits
This course will cover the application of the construction contracts, drawings, and specifications to the construction process. It will cover the role construction documents play as a communication tool for understanding the roles and responsibility of the construction parties. It will follow both the CSI (Construction Specification Institute) and the NYSDOT (New York State Department of Transportation) formats. Two class hours. Course offered Spring only.  
Prerequisites: CIT 122, CIT 123 or permission of instructor; corequisite: CIT 217.

CIT 224 Structural Design 4 Credits
Design, investigation, and crafting of elementary reinforced concrete and structural steel members including rectangular beams, T-beams, columns, foundations, retaining walls, prestressed concrete, steel plate girders and columns, welded and bolted connections. Three class hours, three laboratory hours. Course offered Spring only.  
Prerequisite: CIT 204.

CIT 225 Soil and Concrete Testing 4 Credits
The study and laboratory testing of soils and concrete. Topics include the nature of soils, soil testing, plain

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such as metabolism, protein synthesis, acid-base balance, electrolyte balance, enzymes, and hormones. Laboratory work includes the theory, operation and maintenance of the specialized and semi-automated analytical instrumentation used to perform these tests. Three class hours, three laboratory hours. Course offered Fall and Spring. 

Prerequisite(s): CLT 110 with a grade of C or higher, CHE 145 or CHE 151 AND any one of BIO 135, BIO 143, BIO 145, both with a grade of C or higher; and MCC Level 9 Mathematics placement or MTH 165 with a grade of C or higher; or permission of instructor.

CLT 220 Immunohematology 4 Credits

An introduction to the field of practical Immunohematology and Blood Banking. Emphasis is placed on the theoretical knowledge of human genetics, blood groups, blood cell grouping, blood components, fractionation, storage and washing, transfusion therapies, transfusion reactions, and autoantibody and autoantibody formation. Additionally, good laboratory practices, neatness, organization, attention to detail and professionalism are revisited. Two class hours, two laboratory hours. Course offered Fall and Spring. 

Prerequisite(s): BIO 135, BIO 148, CLT 110 and CLT 140 or permission of instructor.

CLT 230 Hematology and Coagulation 4 Credits

A comprehensive study of the physiology of the normal hematopoietic system and the pathophysiology of an abnormal hematopoietic system and ramifications of these lesions in maintaining homeostasis. Emphasis is on the mechanics of test procedures, interpretation of hematology test results and correlation of the results with disease. Three class hours, three laboratory hours. Course offered Fall and Spring. 

Prerequisite(s): CLT 110 with grade of C or higher and any one of BIO 135, BIO 143, BIO 145 each with a grade of C or higher; or permission of instructor.

CLT 251 Clinical Affiliate Clinical Rotation I 2 Credits

The Clinical Rotations are intended to expose the CLT students to functioning lab in an integrated health care environment and to assure the students meet the CLT competencies as described in the CLT Student Handbook. As such, emphasis is placed on professional conduct and performance of procedures in accordance with protocols of the department. Under the supervision of laboratory personnel, students will demonstrate professional behavior, conduct routine procedures, develop their analytical skills and apply knowledge acquired in the program. Students will verify preanalytical specimen integrity, follow analytical laboratory protocols and demonstrate exceptional communication skills in the post analytical reporting of results. There are approximately six departments; Body Fluids/Urinalysis, Immunology/Serology, Microbiology, Clinical Chemistry, Blood Bank and Hematology. There are three rotational courses; CLT 251, 253 and 255. Therefore, on average a student will rotate through two departments per rotation. One hundred twenty-eight clinical hours. Course offered Spring only.

Prerequisite: CLT 203, CLT 210, CLT 220, CLT 230 and permission of program director; co-requisite: CLT 260

CLT 253 Clinical Affiliate Clinical Rotation II 2 Credits

The Clinical Rotations are intended to expose the CLT students to functioning lab in an integrated health care environment and to assure the students meet the CLT competencies as described in the CLT Student Handbook. As such, emphasis is placed on professional conduct and performance of procedures in accordance with protocols of the department. Under the supervision of laboratory personnel, students will demonstrate professional behavior, conduct routine procedures, develop their analytical skills and apply knowledge acquired in the program. Students will verify preanalytical specimen integrity, follow analytical laboratory protocols and demonstrate exceptional communication skills in the post analytical reporting of results. There are approximately six departments; Body Fluids/Urinalysis, Immunology/Serology, Microbiology, Clinical Chemistry, Blood Bank and Hematology. There are three rotational courses; CLT 251, 253 and 255. Therefore, on average a student will rotate through two departments per rotation. One hundred twenty-eight clinical hours. Course offered Spring only.

Prerequisite: CLT 203, CLT 210, CLT 220, and CLT 230 all with a grade of C or higher and permission of program director.

CLT 255 Clinical Affiliate Clinical Rotation III 2 Credits

The Clinical Rotations are intended to expose the CLT students to functioning lab in an integrated health care environment and to assure the students meet the CLT competencies as described in the CLT Student Handbook. As such, emphasis is placed on professional conduct and performance of procedures in accordance with protocols of the department. Under the supervision of laboratory personnel, students will demonstrate professional behavior, conduct routine procedures, develop their analytical skills and apply knowledge acquired in the program. Students will verify preanalytical specimen integrity, follow analytical laboratory protocols and demonstrate exceptional communication skills in the post analytical reporting of results. There are approximately six departments; Body Fluids/Urinalysis, Immunology/Serology, Microbiology, Clinical Chemistry, Blood Bank and Hematology. There are three rotational courses; CLT 251, 253 and 255. Therefore, on average a student will rotate through two departments per rotation. One hundred twenty-eight clinical hours. Course offered Spring only.

Prerequisite: CLT 203, CLT 210, CLT 220, CLT 230 and permission of program director; co-requisite: CLT 260
COM 101  Introduction to Mass Media  3 Credits
An introduction to communication theory and practice, the history of mass media, and an examination of the business of the American mass media. Additional topics will include media support industries, such as advertising and public relations. This course fulfills the MCC requirement for a humanities elective. Three class hours. Course offered Fall and Spring.

COM 109  An Introduction to Public Relations  3 Credits
A survey of the roles and responsibilities of the public relations professional in private and public organizations. Examination of the importance of the audience and audience research in public relations program planning, how public relations differs from advertising and the use of traditional publicity tools like press releases and press kits to reach targeted audiences. Exploration of the use of the Internet to reach key stakeholders and its use as a distribution channel for publicity. Recognition of the importance of ethics, integrity and relationship building as a cornerstone of public relations. Course offered Fall and Spring.

COM 115  Computer Generated Images  3 Credits
This course presents introductory hands-on experiences in exploring the potential of multimedia computer software, special graphic effects and computer imaging techniques as a creative medium. The focus of the course is on exploring how computers and traditional photographic and video technologies are coming together as tools for creating unique graphic images. Three class hours. (SUNY-A) Course offered Fall and Spring.

COM 120  Media Literacy  3 Credits
An introduction to the critical consumption of media. This course will focus on the ability to access, analyze, evaluate and communicate the process of creating and interpreting media in a variety of forms. This course fulfills the MCC requirement for a humanities elective. Three class hours. (SUNY-A) Course offered Fall and Spring.

COM 130  Media Writing -WR  3 Credits
Media writing explores the different styles of writing for print media, broadcast media, the Web, advertising copy, and public relations materials. Students will learn how to gather information, write for specific audiences, and check for accuracy. This course will also discuss the legal implications of writing for the media. This course fulfills the MCC requirement for a humanities elective. Three class hours. Course offered Fall and Spring.

COM 131  Principles of Journalism  3 Credits
This course provides an overview of journalism principles and practices. Information covered includes discussion and interpretation of what is news, news reporting today, beat reporting, feature writing, and writing for the web. Students will learn to work alone and in teams to conduct interviews, find sources, and prepare news leads, news stories, and profiles. They will demonstrate their ability to write and edit balanced, accurate journalistic stories on deadline. This course fulfills the MCC requirement for a humanities elective. Three class hours. Course offered Fall and Spring.

COM 132  Broadcast Performance  3 Credits
Practice in devising and participating in various kinds of radio and television performances, including news, sports, commercials, promotional announcements, and interviews. Two class hours, two laboratory hours. Course offered Fall and Spring.

COM 142  Broadcast Performance  3 Credits
A combination lecture/lab course designed to introduce students to producing video presentations in electronic field production (EFP). Emphasis is placed on the use of portable video equipment, lighting, audio and videographic skills. Students will be required to purchase appropriate digital media. Two class hours, two lab hours. Course offered Fall and Spring.

COM 151  Journalism II  3 Credits
An advanced course in journalistic writing and editing, including readings, discussions and workshops in the theories and practices of journalism. Three class hours. Course offered Fall and Spring.

COM 155  Journalism II+  3 Credits
Advanced techniques in the technical and production aspects of television programming. Emphasis will be placed on studio and control room operation, engineering experience, program planning and organization production and direction of individual assignments. Experience and theory of video recording will be given. Principles of TV signal distribution will be discussed. Spring semester only. Two class hours, two laboratory hours. Course offered Spring only.

COM 202  Techniques of Television I+  3 Credits
Introduction to the basic aspects of technical and production techniques of television and related audio systems used in the medium. Emphasis will be placed on theory and use of television equipment, direction, lighting, television graphics, scripting, basic engineering, distribution systems, and studio personnel. In addition to the student-produced and directed assignments, members of the class will participate in production crews. Students will be required to purchase one VHS-120 videocassette. Two class hours, two laboratory hours. Course offered Fall and Spring.

COM 203  Compositing and Visual Effects  3 Credits
This intermediate course focuses on the study of live action video manipulation. Working with contemporary hardware and software, students will begin learning about and creating common audio and visual effects. The student will examine and explore historical uses of video effects to guide them in the creation of their own classroom projects. Three class hours. Course offered Fall and Spring.
COM 221 Practicum in Media II 6 Credits
A course designed to allow students to complete significant experiences within their discipline of study, including communication, art, music, and interior design. Students will be expected to spend a minimum of twelve (12) hours per week in supervised contract learning situations. Students will work with the appropriate Visual and Performing Arts Department faculty member to identify, design and complete contract learning opportunities. Course offered Fall and Spring. Prerequisite: Permission of a VaPA Department faculty member.

COM 230 Scriptwriting 3 Credits
Review and practice of the requirements for writing professionally formatted scripts used in short and feature films. Emphasis will be placed on writing short-form scripts and analyzing and discussing long-form dramatic scripts. Three class hours. Course offered Fall and Spring. Prerequisite: ENG 101 or ENG 200.

COM 261 Introduction to Multimedia 3 Credits
Provides an overview of multimedia, a relatively new field in which more traditional media (text, video, sound, graphics, photography, animation) can be combined in a single media event using the computer. Aspects of authoring, design and production including technical hardware and software considerations will be covered. Discussions of the use of multimedia in training, education, marketing and entertainment will be included. Three class hours. Course offered Fall and Spring. Prerequisites: All first semester electronic publishing courses, or permission of instructor.

COM 262 Multimedia Authoring 3 Credits
Introduces the student to the basics of the authoring process involved in the creation of a multimedia event. From audience definition and concept to scripting and flowcharting, students will learn how to build the multimedia structure from the bottom up. How to plan and design linkages between content areas, and the appropriate interaction of visual and audio materials will be explored. Two class hours, two laboratory hours. Course offered Fall and Spring.

COM 263 Design for Interactive Multimedia 3 Credits
Introduces students to the basics of designing for interactive multimedia. User-interface design, transitions, interactive links between content areas and creating the overall look and feel of a project will be covered. Emphasis will be in the visual aspects of individual elements and how they work together as a means of creating an effective interactive multimedia project. Students work on their own projects which will be completed in the Multimedia Production Lab. Two class hours, two laboratory hours. Course offered Fall and Spring. Prerequisites: All first semester electronic publishing courses, or permission of instructor.

COM 264 Video Production II 3 Credits
An intermediate course that provides a continuation of the principles learned and practiced in Video Production I (COM 150) as they relate to camera operation. The student will add to their skills through advanced techniques in image acquisition with increased emphasis on editing of live-action video footage. Working with contemporary non-linear editing systems, the emphasis will be placed on the structure and pacing of a finished video project. Three class hours. Course offered Fall and Spring. Prerequisite: COM 150.

COM 265 3D Modeling 3 Credits
Introduces the student to the basic principles of building three-dimensional objects and environments on a Macintosh computer. The concept of three-dimensional space and geometrical transformations will be covered, as well as specific modeling techniques such as extrusion, working with cross sections, and wireframe will be the dominant rendering method, but light and color will also be explored. Two class hours, two laboratory hours. Course offered Fall and Spring. Prerequisites: All first semester desktop publishing courses, or permission of instructor.

COM 266 Multimedia Production Studio 6 Credits
Expands on the stages of the multimedia authoring process that began in COM 262. Based on flowcharting, scripting, and storyboarding done in COM 262, teams will begin to create and test structures which will then be assembled into a prototype of their multimedia piece. Students will learn programming concepts, integration of audio and visual materials, interactive design and how to evaluate the product while it is still in a formative stage. Completion of an interactive multimedia piece will be required. Three class hours, five laboratory hours. Course offered Fall and Spring. Prerequisites: All first semester electronic publishing courses and COM 262, or permission of instructor.

COM 267 Video Editing 3 Credits
Students will be concentrating on advanced tools and techniques used to make high quality video clips and sound tracks. This will involve working with non-linear editing software such as Avid Xpress Pro. Real-time video editing, waveform sound editing and other methods of audio/video production will be stressed. Two class hours, two laboratory hours. Course offered Spring only. Prerequisite(s): COM 150 or permission of instructor.

COM 268 3D Animation 3 Credits
An introduction to the basic aspects of designing and producing three-dimensional animation on the Macintosh computer. Course proceeds from the assumption that students are already familiar with the basics of three-dimensional modeling on the Macintosh. Creation of storyboards for planning narrative sequences, camera moves, rendering techniques and thinking and working in time and space will all be explored. Students will be required to create a short animated piece in wireframe mode. Two class hours, two laboratory hours. Course offered Fall and Spring. Prerequisites: All first semester electronic publishing courses and COM 265, or permission of instructor.

COM 270 Media and Society 3 Credits
An examination and analysis of American mass media and the forces that influence them. Emphasis will be placed upon basic legal principles, the role of government in attempting to regulate the media, and the media's influence on our society. Three class hours. This course fulfills the MCC requirement for a humanities elective. Course offered Fall and Spring. Prerequisites: COM 101

COS - College Success

COS 100 Nursing Orientation Seminar 1 Credit
This course focuses on assisting the nursing student to acquire essential skills, techniques and behaviors that will lead to success as a student, a lifelong learner and a beginning member of the nursing profession. One class hour. Course offered Fall and Spring.

COS 101 College Orientation 1 Credit
COS 101 provides essential information about the College in a concise one-credit course. Topics include campus resources and activities, MCC technology, goal setting, time management, and college policies. Students will leave this course more informed and prepared for their college experience.

A student who has earned a passing grade for COS 101 cannot later earn credit for COS 133. One class hour. Course offered Fall and Spring.

COS 102 College Research Methods 1 Credit
Students will learn fundamental college level research skills required in college level courses. This course emphasizes actual research projects and includes hands-on activities. Students will master techniques to identify, evaluate and utilize information from a variety of print and web-based sources. One class hour. Course offered Fall and Spring.

COS 133 College Orientation and Success Strategies 3 Credits
COS 133 will enable students to transition successfully into the college environment by incorporating strategies designed to build skills and promote habits of mind that will sustain them throughout their lives and careers. Students will learn how to set goals, manage time, solve academic problems, learn and study in college, and use MCC technology. By becoming informed and vested members of the College community, students will be able to self-advocate, access resources, establish relationships, critically think, and ultimately develop a
strong work ethic for personal and academic success. Students will leave this course with the ability to make informed choices and with a clearer sense of their purpose, meaning, and direction. A student who has earned a passing grade for COS 133 cannot later earn credit for COS 101. Three class hours. Course offered Fall and Spring.

COS 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

CPT - Computer Technology

CPT 101 Programming in Python 4 Credits
A gentle introduction to basic programming concepts using Python. Python is a high-level, interpreted object oriented programming language with built-in data structures and dynamic data typing. This results in programs that are typically much shorter than programs written in Java or C++. Python’s built in debugger allows the developer to inspect variables, set breakpoints and evaluate expressions in real-time. The underlying C and Java like structure and modularity allow for easy integration or linkage to existing programs in these languages. The combined features of Python are well suited for rapid program development leading to enhanced productivity. Practical applications of Python may be found in the prominent fields of Biology, Chemistry, Physics, Astronomy and Mathematics. This course utilizes an electronic-classroom setting to introduce the beginner or curious programmer to Python and basic programming concepts through a series of practical hands-on exercises interlaced with the discussion material. Three class hours, two lab hours. Course offered Fall and Spring.

MTH 104 with a grade of C or better, or MCC level 8 mathematics placement.

CPT 114 Problem Solving and Robotics 3 Credits
This course is designed to develop and/or enhance practical problem solving skills and apply these skills to Robotics. Challenging exercises and robotics projects are designed to foster critical thinking that is particularly useful to students interested in the engineering, computational and networking disciplines. The course focuses on the analysis, design and implementation phases in developing a complete solution to a given problem. Major concepts discussed include algorithm development, number systems conversions, logic flow diagram development, and solution testing. Appropriate use of data types, conditional selection, repetitive, and iterative solutions are emphasized throughout the course. A data flow programming approach using LabView is utilized extensively throughout the course to implement and test concepts. Projects make use of the exciting and challenging Lego Mindstorms Robotics system to create real-life applications that build on the skills developed throughout the course. Two class hours, two laboratory hours. Course offered Fall and Spring.

Prerequisite: MTH 104 with a grade of C, or higher level Algebra course.

CPT 115 Introduction to Networks 3 Credits
This course corresponds to the first semester of the Cisco Networking Academy Exploration track. It introduces students to the architecture, structure, functions, components, and models of the Internet and other computer networks. It uses the OSI and TCP layered models to examine the nature and roles of protocols and services at the application, network, data link, and physical layers. The principles and structure of IP addressing and the fundamentals of Ethernet concepts, media, and operations are introduced to provide a foundation for further studies in computer networking. Hands-on labs for this course use a “model Internet” to allow students to analyze real data without affecting production networks. At the end of the course, students build simple LAN topologies by applying basic principles of cabling, performing basic configurations of network devices such as routers and switches, and implementing IP addressing schemes. Two class hours, two laboratory hours. Course offered Fall and Spring.

CPT 120 Introduction to Cybersecurity 4 Credits
Designed for students with no security experience or background, this course will cover basic terminology and concepts. Included will be the basics of cryptography, security management, wireless networking, and organizational policy. Topics will include: an overview of the information security framework, network infrastructure security, security and cryptography, information security policy, and defense in depth. Other topics covered in this course include: basic security terminology and professional terms, network basics, tracer, nslolokup, ipconfig, ping, DNS, DoS attacks, overview of malware, rules for avoiding viruses and vulnerabilities. Three class hours, two lab hours. Course offered Fall and Spring.

CPT 125 Physical Security 3 Credits
This course focuses on the design and implementation of network physical security policies and mechanisms. Physical security is the protection of personnel, hardware, programs, networks, and data from physical circumstances and events that could cause serious losses or damage to an enterprise, agency, or institution. This includes protection from fire, natural disasters, burglary, theft, vandalism, and terrorism. Two class hours, two lab hours. Course offered Fall and Spring.

Prerequisite: CPT 120.

CPT 200 Operating Systems and Peripherals 3 Credits
Fundamental multitasking/multi-user operating system concepts, as applicable to modern day computer systems, are studied. Major topics include priority boosting, priority and round robin scheduling, virtual memory management, paging, mapping, swapping, and process management. Applications that interface to the outside world via the PC’s external I/O ports are examined in the laboratory. Emphasis is placed on developing simple “device drivers” using a combination of low and high level language tools. Two class hours, two laboratory hours. Course offered Fall and Spring.

Prerequisites: A grade of C or better in COS 200, CSC 101 or CPT 101.

CPT 210 Android App Design for Mobile Devices 3 Credits
An introduction to the design and implementation of mobile applications using the Android computing platform. Students will utilize standard software development techniques, including the use of an integrated development environment and software development kits, to build mobile applications. The applications will include capture and processing of data from the integrated sensors found in a typical mobile device. Three class hours. Course offered Fall and Spring.

Prerequisite(s): CSC 101 or CPT 101 or CIST 101.

CPT 211 Wireless and Remote Sensor Technology 3 Credits
This course introduces the student to concepts employed in the wireless acquisition of data from remote sensors found on airborne devices such as aircraft, spacecrafts, and satellites as well as from sensors integrated into common commercially available medical devices, tablets and smartphones. The use of remote sensors involves the acquisition of information on an object, phenomenon or an environment with minimum physical contact. In practice this is achieved by acquiring information from sensors that are responsive to environmental elements, which may be atmospheric (air pressure, vibration, humidity) or electromagnetic radiation that may be in the form of invisible (heat) or visible radiation. Students will explore various applications of sensors in a laboratory setting, apply their knowledge of digital electronics, networking and programming and gain experience integrating commercially available electro-optical, magnetic and environmental sensors into a practical wireless application. Two class hours, two lab hours. Course offered Fall and Spring.

Prerequisite(s): MTH 165, ENR 157, CSC 202 all with a grade of C or better.

CPT 212 Operating Systems and Peripherals 3 Credits
Fundamental multitasking/multi-user operating system concepts, as applicable to modern day computer systems, are studied. Major topics include priority boosting, priority and round robin scheduling, virtual memory management, paging, mapping, swapping, and process management. Applications that interface to the outside world via the PC’s external I/O ports are examined in the laboratory. Emphasis is placed on developing simple “device drivers” using a combination of low and high level language tools. Two class hours, two laboratory hours. Course offered Fall and Spring.

Prerequisites: A grade of C or better in COS 200, CSC 101 or CPT 101.
CPT 213  Computer Systems Design Lab  1 Credit
Students will work in teams to solve an application and/or design problem selected from an intercollegiate design challenge or a student proposal approved by the instructor. The students will design and build a working prototype, create a design report, and make an oral presentation. Each student will be required to maintain a weekly ledger in the form of a lab book that details work performed and progress that is periodically reviewed and graded by the instructor. Three laboratory hours. Course offered Spring only.
Prerequisite: CSC 202

CPT 215  Routing Fundamentals  3 Credits
This course corresponds to the second semester of the Cisco Networking Academy Exploration track. It describes the architecture, components, and operation of routers, and explains the principles of routing and routing protocols. Students analyze, configure, verify, and troubleshoot the primary routing protocols RIPv1, RIPv2, EIGRP, and OSPF. By the end of this course, students will be able to recognize and correct common routing issues and problems. Two class hours, two laboratory hours. Course offered Fall and Spring.
Prerequisites: CPT 115 with a grade of C or better.

CPT 216  Advanced Networking Concepts  3 Credits
This course focuses on securing local and wide area networks from the network administrator and an outside point of view. With successful completion of this course, students will have a thorough understanding of how outsiders attack networks and how to prevent these attacks from being successful. Students will also have a thorough understanding of current technologies that run over LANs and WANs and demand robust security. These technologies will be covered in depth throughout this course. Two class hours, two laboratory hours. Course offered Fall and Spring.
Prerequisite: CPT 215 with a grade of C or better.

CPT 217  LAN Switching  3 Credits
This course corresponds to the third semester of the Cisco Networking Academy Exploration track and provides a comprehensive, theoretical, and practical approach to learning the technologies and protocols needed to design and implement a converged switched network. Students learn about the hierarchical network design model and how to select devices for each layer. The course explains how to configure a switch for basic functionality and how to implement Virtual LANs (VLAN), VLAN Trunking Protocol (VTP), and Inter-VLAN routing in a converged network. The different implementations of Spanning Tree Protocol (STP) in a converged network are presented, and students develop the knowledge and skills necessary to implement a wireless local-area network (WLAN) in a small-to-medium network. Two class hours, two laboratory hours. Course offered Fall and Spring.
Prerequisite: CPT 215

CPT 218  WAN Systems  3 Credits
This course corresponds to the fourth semester of the Cisco Networking Academy Exploration track. It explores the WAN technologies and network services required by converged applications in enterprise networks. The course uses the Cisco Network Architecture to introduce integrated network services and explains how to select the appropriate devices and technologies to meet network requirements. Students learn how to implement and configure common data link protocols and how to apply WAN security concepts, principles of traffic, access control, and addressing services. Finally, students learn how to detect, troubleshoot, and correct common enterprise network implementation issues. Two class hours, two laboratory hours. Course offered Spring only.
Prerequisite: CPT 217

CPT 220  Applied Computer Security Concepts  4 Credits
This course would provide students with the skills and knowledge needed to secure organizational resources. Topics covered include: a review of networking protocols, IOS and router filters, physical security, information assurance, computer security policies, contingency planning, business impact analysis, password management, information warfare, intrusion detection, honey pots, attack vectors, firewalls and perimeters, risk assessment and auditing, cryptography and steganography, PGP, wireless, operational security, permissions and user rights, service patches, securing network services, security baseline analyzers, Linux, and virtual machines. Three class hours, two laboratory hours. Course offered Fall and Spring.
Prerequisite: CPT 120 or permission of instructor.

CPT 225  Network Perimeter Security  4 Credits
This course focuses on the design and implementation of network perimeter security. Topics include: threat vectors, encapsulation at OSI layers 2, 3, 4, and 5, packet decoding, static filters, stateful filters, stateful inspection, intrusion detection and prevention, Network Address Translation (NAT), Access Control Lists (ACLs), Virtual Private Networks (VPNs), proxies, border routers, firewall rule bases, web application and database firewalls, securing the OS and services, firewall assessment, vulnerability assessment, baseline audits, forensics, logging, encryption, authentication, VPNs, wireless, network access control, and security tools. Three class hours, two laboratory hours. Course offered Fall and Spring.
Prerequisite: CPT 120

CPT 290  Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.
CRC 113 Introduction to Microsoft Excel 1 Credit
This course is designed to cover the main features of Excel and demonstrate the advantages of using a powerful electronic spreadsheet. This hands-on course will give the student an overview of creating and formatting worksheets, manipulating data, and designing charts. Project required. Basic knowledge of the PC, keyboard, and mouse are required. One class hour. Course offered Fall and Spring.

CRC 115 Introduction to Microsoft Word 1 Credit
A word processing course designed to introduce Word. Students will learn how to create, modify, and print documents. This hands-on course includes specially prepared exercises that give practical experience in using Word’s tools. Project required. Basic knowledge of the PC, keyboard, and mouse are required. One class hour. Course offered Fall and Spring.

CRC 116 Introduction to Microsoft Access 1 Credit
An introduction to database theory and practice using the features of Access. Students will learn to create and modify the database, design and create queries, and use forms and reports in a ‘hands-on’ lab environment. Project required. Basic knowledge of the PC, keyboard, and mouse are required. One class hour. Course offered Fall and Spring.

CRC 117 Introduction to Microsoft PowerPoint 1 Credit
This course covers PowerPoint’s major features. Students will be able to create and customize multimedia presentations. Specially prepared exercises will provide ‘hands-on’ learning. Project required. Basic knowledge of the PC, keyboard, and mouse are required. One class hour. Course offered Fall and Spring.

CRC 118 Basic Personal Computer Operations and Maintenance 1 Credit
This course is designed for persons who own or plan to purchase a personal computer, but have limited experience in the basic operations and maintenance of a computer. Topics covered will include key components of a computer system, computer purchase considerations, software installation and upgrades, installation of peripheral devices, and basic maintenance. Students will get hands-on experience. One class hour. Course offered Fall only.

CRC 119 Introduction to Dreamweaver MX 1 Credit
Introduction to web site design using Dreamweaver MX software. Topics include the Dreamweaver interface, lists, links, tables, images and frames. Basic knowledge of Microsoft Windows including file management required. This course will be taught in an electronic classroom. One class hour. Course offered Fall and Spring.

CRC 120 Introduction to Health Information Processing 1 Credit
A study of information technology concepts as they relate to health information. Topics include an overview of information processing concepts and computer hardware and software. Learning and lab activities involve use of the Internet and Microsoft Word, Access, Excel, and PowerPoint, as used in health care related settings. Two class hours, two laboratory hours. Course offered Spring only.

CRC 121 Introduction to Macromedia Flash MX 1 Credit
An introduction to creating multimedia using Macromedia Flash MX software. In a ‘hands-on’ computer environment using a guided approach, the student will learn to combine graphics, animation, and sound to create engaging web-based multimedia. One class hour. Course offered Fall and Spring.
Prerequisite: Basic knowledge of Microsoft Windows including file management required.

CRC 122 Computer Animation Using Alice 3 Credits
This course focuses on the fundamentals of computer programming using the programming environment called Alice. This is an introductory course in object-oriented programming using animation. Alice enables you to create animation projects in a small virtual world using 3-dimensional models. Using the Alice programming language you can be a director of a movie, or creator of a video game where 3D objects in an on-screen virtual world move around according to the directions you provide. Basic knowledge of the personal computer, including file maintenance, is required. It is assumed that all students have experience using personal computers, an electronic mail system, and the Internet. Three class hours. Offered Fall, Spring and Summer Semesters.
Prerequisite: MTH 086 must be completed or up to Math Level B

CRC 123 Microsoft Access-Records Management 4 Credits
Provides an in-depth, hands-on introduction to major application software programs found in the Microsoft Software Package: Microsoft Office. The following software packages will be utilized: Microsoft Word (word processing), Microsoft Excel (spreadsheet), Microsoft Access (database management), and Microsoft Powerpoint (presentation). Several major projects are assigned. Basic knowledge of the PC keyboard and mouse are recommended prior to enrollment in this course. Course is not open to students who have taken CRC 113, CRC 115, CRC 116, and CRC 117. Students can earn credit for only one of the following courses: CIS 121, ITG 102, CRC 125. Four class hours. Course offered Fall and Spring.

CRC 124 Microsoft Office 4 Credits
Provides an in-depth, hands-on introduction to major application software programs found in the Microsoft Software Package: Microsoft Office. The following software packages will be utilized: Microsoft Word (word processing), Microsoft Excel (spreadsheet), Microsoft Access (database management), and Microsoft Powerpoint (presentation). Several major projects are assigned. Basic knowledge of the PC keyboard and mouse are recommended prior to enrollment in this course. Course is not open to students who have taken CRC 113, CRC 115, CRC 116, and CRC 117. Students can earn credit for only one of the following courses: CIS 121, ITG 102, CRC 125. Four class hours. Course offered Fall and Spring.

CRC 125 Microsoft Office 4 Credits
This course introduces students to cloud computing frameworks and the techniques used to design, develop, and implement these systems. The course will emphasize hands-on, project-based learning and will include practical laboratory exercises that involve setting up Windows-based clouds using client portals, servers, virtual machines, and the accompanying network infrastructure. Two class hours, two laboratory hours. Course offered Fall and Spring.
Prerequisite(s): Permission of instructor

CRC 126 Cloud Computing and Mobile Computing 3 Credits
This course examines the technological infrastructures deployed in various regions of the world that facilitate cloud and mobile computing. In this course, students will investigate the technical issues surrounding access and ownership of mobile services and resources in the cloud. Three class hours. Course offered Fall and Spring.

CRC 127 Microsoft PowerPoint-Presentations 3 Credits
An intensive course covering Microsoft Excel. Objectives include preparing, formatting, and enhancing worksheets, applying formulas and functions, charting, using analysis, linking, workgroup features, and increase productivity through use of macros and templates. This course is designed to teach skill sets needed for the Microsoft Office Certification Exam. Knowledge of the personal computer, keyboard and mouse is strongly recommended. Three class hours. Course offered Fall and Spring.

CRC 128 Microsoft Access-Records Management 3 Credits
An intensive course that covers Microsoft Access. Objectives include planning and designing databases; building and modifying tables, forms, and reports; advanced manipulation of data; defining relationships; modification of report properties; subforms, switchboards, PivotTables, and importing/exporting data. This course is designed to cover skill sets needed for the Microsoft Office Certification Exam. Knowledge of the personal computer, keyboard and mouse is strongly recommended. Three class hours. Course offered Fall and Spring.

CRC 129 Microsoft PowerPoint-Presentations 2 Credits
This course will offer a thorough coverage of the Microsoft PowerPoint presentation package. Areas covered include all skill sets needed for Microsoft Office Certification Exam. Instruction will cover animation, use of color and objects, and importing and exporting data and images. Activities include creating a slide show as well as delivering the presentation. Knowledge of the personal computer, keyboard and mouse is strongly recommended. Two class hours. Course offered Fall only.
CRC 174  Microsoft Publisher-Desktop Publishing  2 Credits
This course will focus on the production, assembly, and design of administrative publications through the use of Microsoft Publisher using the personal computer. Topics will include designing page layout, creating graphics, using templates, manipulating text and graphics, using style sheets, scanning images, and adding special effects. Knowledge of the personal computer, keyboard, and mouse is strongly recommended. Two class hours. Course offered Spring only.

CRC 201  Introduction to UNIX  1 Credit
This course provides the student with hands-on experience with UNIX command-line functions, the VI editor, file management tools, and command shells. The student will learn user-level commands and gain basic knowledge about the UNIX operating system. A project will be assigned to be completed outside of class time. One class hour. Course offered Fall and Spring. Prerequisite: CSC 101 or CIS 101 with a grade of C or higher.

CRC 202  UNIX Shell Scripts  1 Credit
This course is a continuation of CRC 201. The student will learn to create simple scripts for sed, awk, and the shell using basic user-level and advanced commands. Implementation of case, if-else, and iteration techniques will be taught. Additional topics presented will include grep, regular expressions, meta-characters, user and system variables, and the UNIX file system. A project will be assigned to be completed outside of class time. One class hour. Course offered Fall and Spring. Prerequisite: CRC 201 with a grade of C or better.

CRC 230  Cloud Security  3 Credits
The economies of scale and flexibility of cloud systems offer strengths and challenges from a security perspective. The enormous concentrations of resources and data found in the cloud present a very attractive target for malicious activity. However, cloud-based resistance to threats can be made robust, scalable, and cost-effective. This course focuses on the development of strategies that address the security risks and benefits of using cloud computing and on developing Defense-in-Depth tactics to protect corporate resources deployed in the cloud. Two class hours, two laboratory hours. Course offered Fall and Spring. Prerequisite: CRC 133

CRC 231  Mobile Computing  3 Credits
This course will cover the nomenclature and implementation of mobile computing and mobile communication. Coverage mobile systems will include 2G, 2.5G, 3G, 3G+, and 4G communication systems, mobile satellite communication networks, mobile IP, mobile TCP, digital audio-video broadcasting, and mobile TV. This course will also provide a systematic explanation of mobile computing as a discrete discipline and will provide an in-depth coverage of mobile systems and devices, mobile operating systems used for application development, mobile databases, client-server computing agents, application servers, security protocols, mobile Internet, and ad-hoc and sensor networks. Two class hours, two laboratory hours. Course offered Fall and Spring. Prerequisite: CRC 133

CRC 290  Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

CRJ  - Criminal Justice

CRJ 101  Introduction to Criminal Justice  3 Credits
Examines all three segments of criminal justice system: law enforcement, courts, and corrections, including study of their evolution, structure, agencies, career opportunities and requirements, responsibilities, and ethics. Role of Constitution and state and federal laws, current problems of each. Three class hours. Course offered Fall and Spring. Prerequisite(s): College English placement and Accuplacer reading score above 70 or College English placement and Accuplacer reading score below 70 and REA 100 or TRS 200 or TRS 105 and REA 100 if Accuplacer reading score is not above 70. Co-requisite(s): TRS 200 or TRS 105 and REA 100 if Accuplacer reading score is not above 70.

CRJ 102  Introduction to Private Security/Loss Prevention  3 Credits
This course will cover the development, role, responsibility, limitations and liabilities of the private security industry within society from its beginnings to its current state. Specific attention will be spent on describing the relationship between private security professionals, law enforcement and representatives of the legal system. Additional topics such as work place violence, organized retail theft, the conduct of internal and external investigations, interviewing techniques, current role and impact technology, and career opportunities will also be analyzed and evaluated. Three class hours. Course offered Fall and Spring. Prerequisite: CRC 201 with a grade of C or better.

CRJ 103  Constitutional Law and Rights of People  3 Credits
A study of the Federal Constitution and the Bill of Rights with regard to the rights of the individual, as interpreted by leading U.S. Supreme Court decisions. The first, fourth, fifth, sixth, eighth, and fourteenth amendments will be primarily focused upon with an emphasis on their law enforcement impact. Three class hours. Course offered Fall and Spring. Prerequisite(s): College English placement and Accuplacer reading score above 70 or College English placement and Accuplacer reading score below 70 and REA 100 or TRS 200 or TRS 105 and REA 100 if Accuplacer reading score is not above 70. Co-requisite(s): TRS 200 or TRS 105 and REA 100 if Accuplacer reading score is not above 70.

CRJ 104  Criminal Law  3 Credits
A study of the fundamental concepts of the substantive criminal law, including a short history of and purposes of the law, classification of offenses and sentences. A detailed study of mental culpability, defenses, such as infancy, insanity and the anticipatory crimes, offenses against the person; and those involving intrusion upon property, fraud, public administration, and public order. Three class hours. (Need not be taken in sequence.) Course offered Fall and Spring. Prerequisites: CRJ 101, CRJ 103 or permission of instructor.

CRJ 105  Criminal Procedure Law  3 Credits
A study of the fundamental concepts of the procedural criminal law including such concepts as double jeopardy, immunity, statute of limitations, the filing of accusatory instruments, arrest without a warrant, the issuance and execution of a warrant of arrest, arraignments, preliminary hearings, bail, trial, grand and petit juries. Three class hours. (Need not be taken in sequence.) Course offered Fall and Spring. Prerequisites: Successful completion of CRJ 101 and CRJ 103. Recommended not to be taken concurrently with CRJ 104.

CRJ 121  Criminal Justice Education Internship I  3 Credits
An activity designed to enhance both the theoretical and educational concepts learned in the practical work experience gained by working 90 hours during a semester in an approved criminal justice agency. This course is also designed to assist you in your career exploration. You are required to find the right agency in which to do your internship. To get the most out of this course you should be working in an agency and in a position that best represents your career goal. Papers and assignments will be completed on the work experiences and their educational value. Course offered Fall and Spring. Prerequisite(s): Successful completion of CRJ 101, CRJ 103, CRJ 104, and CRJ 204, or permission of instructor.

CRJ 170  Introduction to Corrections  3 Credits
This course focuses on the major programs within the corrections component of the criminal justice system. It includes analysis of probation, institutional treatment, parole, and community corrections programs. Development of corrections philosophy, theory, and practice will be presented with emphasis on constitutional rights of offenders. Three class hours. Course offered Fall and Spring.
CRJ 171 Legal Aspects of Corrections 3 Credits
A review of the Constitution, Bill of Rights, civil rights of institutional inmates and those under supervision; legal authority and responsibilities of institutional, probation and parole officers; procedural law with an explanation of the court systems of the U.S. at all levels, emphasizing adversary proceedings in the criminal and civil courts as they apply to corrections. Three class hours. Course offered Spring only. Prerequisite: Successful completion of CRJ 101 and CRJ 103.

CRJ 172 Institutional Procedures and Treatment of Inmates 3 Credits
The function of the correctional officer is examined: attitude, obligations and authority. Institutional procedures in reception, classification, program assignment and release procedures are reviewed. Trends in jail programs, work release programs, half-way houses, narcotic addiction control centers and contract program planning are described and evaluated. Three class hours. Course offered Fall and Spring. Prerequisite: Successful completion of CRJ 101 and CRJ 103.

CRJ 201 Criminal Investigations 3 Credits
A study of the qualities of an investigation, general criminal investigative methods, procedures and techniques, and phases of investigation. Three class hours. Course offered Fall and Spring. Prerequisite: Successful completion of CRJ 101 and CRJ 103.

CRJ 203 Private Security/ Loss Prevention Investigations 3 Credits
This course will cover the process of initiating, conducting and completing an investigation within the private security field. Particular attention will focus on the role of technology within private security investigations, analyzing different types of investigations, defining the multiple components of an investigation, describing skills an investigator must possess, explaining the interviewing process of witnesses and suspects, and the obtaining of written statements. Finally, additional topics such as legal liabilities, investigator and business responsibilities, the role of law enforcement, and the future of private investigative services will be discussed. Three class hours. Course offered Fall and Spring. Prerequisite: CRJ 102.

CRJ 204 Juvenile Justice 3 Credits
Juvenile delinquency and the role of the criminal justice practitioner in handling juvenile matters is examined. The philosophy and history of juvenile proceedings, including trends in prevention, placements, current court decisions and “rights of children” are emphasized. The Family Court Law of New York and handling of juvenile matters are explored. Three class hours. Course offered Fall and Spring. Prerequisite: Successful completion of CRJ 101 and CRJ 103.

CRJ 207 Criminal Evidence 3 Credits
A study of rules of evidence in criminal matters. Particular emphasis is placed on rules of evidence in the fourth, fifth, and sixth amendments of the Bill of Rights which safeguard such fundamental individual liberties as personal security, protection from self-incrimination, and right to counsel, with emphasis on New York law. Three class hours. Course offered Fall and Spring. Prerequisite: Successful completion of CRJ 101 and CRJ 103.

CRJ 209 Crime Scene Management 3 Credits
Examines the application of the physical and biological sciences to criminal investigation. Modern technology will be detailed as it applies to crime scene management, fingerprint science and photography. Emphasis is placed on the inter-relationship between science and law enforcement. The student will have the opportunity, in a classroom equipped with laboratory materials, to demonstrate their learning with hands-on activities directly related to the contemporary crime scene. Three class hours. Course offered Fall and Spring. Prerequisite: Successful completion of CRJ 101 and CRJ 103, or permission of instructor.

CRJ 211 Community Values and the Administration of Justice 3 Credits
The inter-relationship of community values and ethical conduct in the administration of justice is explored. Through interaction and study, the student will become aware of how community and professional expectations can affect role performance. Open communication and accountability within and without the justice process will be stressed. (It is strongly suggested that students register for this course during their final semester before graduation.) Three class hours. Course offered Fall and Spring. Prerequisite(s): CRJ 101, CRJ 103, CRJ 104, CRJ 121, CRJ 204, or permission of instructor. Co-requisite: CRJ 121

CRJ 217 Community Based Corrections 3 Credits
A seminar which explores alternatives to incarceration in centralized penal institutions. Problems of work-release and school-release programs are discussed. Management of halfway houses, probation, and parole are reviewed. The success and failure of community-based corrections programs in the United States and in Europe are also explored. Three class hours. Course offered Fall only. Prerequisites: Successful completion of CRJ 101 and CRJ 103.

CRJ 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

CSC 101 Introduction to Computer Science 4 Credits
A first course in programming for the Computer Science student. Emphasis will be on program specification, analysis, problem solving and implementation using an object-oriented language such as JAVA. Topics include definitions of classes and objects, algorithm development and methods, primitive and reference data types, arrays, strings, and operators. Successful completion of this course with a C or better is required for further progress in Computer degree programs. Several major programming projects will be assigned to be completed outside of class and lab. Three class hours, two laboratory hours. Completion of this course with a C or better is required before taking any other CSC courses. Course offered Fall and Spring. Prerequisite: MTH 172 or MTH 175, or CIS 100 and MTH 165, or MTH 165 and CPT 114, all with a grade of C or better.

CSC 103 Introduction to Data Structures 4 Credits
An introduction to basic data structures, and a continuation of CSC 101 for Computer Science majors. Topics include sequential lists, linked lists, stacks, queues, recursion, binary trees, searching and sorting. Other topics include algorithm analysis and design, inheritance, polymorphism. An object oriented language such as Java will be used to implement algorithm and further develop general programming skills. Students will be required to complete several programming projects outside of class. Three class hours, two laboratory hours. Course offered Fall and Spring. Prerequisite: CSC 101 with a grade of C or better.

CSC 202 Programming Embedded Microcontrollers in C and Assembly 4 Credits
The student will learn how to program, interface and troubleshoot a modern embedded processor such as the Motorola 68HC12 in both C and Assembly Language. Microcontroller architecture will be stressed. Topics include Synchronous and Asynchronous Input/Output, Analog to Digital Conversion, Pulse Width Modulation, Timer/Counters, Interrupts and Parallel Port Programming. Laboratory work will focus on program development, implementation and debugging techniques. Several programming projects will be assigned to be completed outside of class and in lab. A final project and student presentation are required. Three class hours, two laboratory hours. Course offered Fall and Spring. Prerequisite: MTH 165 with a C or better and CIS 200 or CPT 101 or CSC 101 or ENR 161 or ENR 167 with a C or better.
CSC 206 Digital Computer Organization 3 Credits
This course provides an introduction to the design of the digital computer. Topics include number systems, digital gates, Boolean Algebra, design and implementation of combinational and sequential circuits, decoders, encoders, multiplexors, flip-flops, counters, registers and memory devices. Laboratory experiments include building combinational and sequential circuits. Two class hours, two laboratory hours. Course offered Fall and Spring. Prerequisite(s): CIS 200 or CPT 101 or CSC 101 with a grade of C or better.

CSC 214 Electronic Vision and Image Processing 3 Credits
This course introduces the student to the basic elements of digital image acquisition and processing by examining how CCD’s (charge coupled devices) function and how they are used in a camera to capture an image. Practical hands-on laboratory projects reinforce concepts while the student learns how a truly scientific grade, low noise CCD camera is built from ground-up using discrete components. The students problem solving skills are put to the test as they work in small specialized groups to attack challenging problems. Practical programming skills are developed as the student learns how to apply a high level programming language such as Java, C, Python and/or LabVIEW to facilitate in design, experimentation, data acquisition, image processing and analysis. Topics covered include: types of image sensors, performance characteristics, noise, digitization, scaling, color and gray scale rendition. This course is typically offered in the Spring, bimannually. Two class hours, two laboratory hours. Course offered Spring only. Prerequisite(s): MTH 165 or higher and one of: CIS 200 or CSC 101 or CPT 101 or CSC 223, both with a grade of C or better.

CSC 215 Introduction to Linux 3 Credits
A course designed to introduce the student to the Linux operating system. Topics will include system installation and configuration, basic system administration, system updates, network services configuration, printer configuration, system services, and scripting. Two class hours, two laboratory hours. Course offered Fall and Spring. Prerequisite(s): CIS 200 or CSC 101 or CPT 101 with a grade of C or better or permission of instructor.

CSC 223 Computer Programming - “C++” 3 Credits
This course presents the principles of computer programming using the C++ language. Topics covered include the use of variable types, expressions, control structures, pre-processor commands, functions, arrays, strings, pointers, structures, classes, objects, and files. Several major programming projects will be assigned to be completed outside of class and laboratory time. Two class hours, two laboratory hours. Students can earn credit for only one of the following courses: CIS 223, ITP 202, CSC 223. Course offered Fall and Spring. Prerequisite(s): CPT 101 or CSC 101 or CIS 200 with a grade of C or better.

CSC 225 Advanced JAVA Programming 3 Credits
A second course in Java programming focusing on advanced language features. Topics will include Object Oriented Analysis and Design (OOAD), methodologies, automatic documentation generation using JAVADOC, Graphical User Interface (GUI) development, threads, database programming using Java Database Connectivity (JDBC), network programming using sockets and Remote Method Invocation (RMI), N-tier programming using Common Request Broker Architecture (CORBA), object serialization and remote objects, and collections. Two class hours, two laboratory hours. Students can earn credit for only one of the following: CIS 225, ITP 201, CSC 225. Prerequisite: CSC 101 or CSC 223 with a grade of C or better Course offered Fall and Spring.

CSC 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall only.

DAS - Dental Assisting

DAS 101 Preclinical Dental Assisting 4 Credits
This course provides foundational didactic content and preclinical/laboratory practice of essential dental assisting skills and chairside dental assisting functions. Topics include examination and assessment procedures, equipment and materials, instrumentation techniques, treatment procedures and the legal supportive functions/skills performed by a licensed dental assistant during restorative procedures. Preclinical practice will prepare students for clinical externship experiences in the spring semester. Offered in Fall Semester. Two class hours and four laboratory hours per week. **DAS 110 SLN is offered as part of the D.A.R.T. online DA program. Course offered Fall only.

DAS 115 Orientation to Dental Assisting Clinical Practice 1 Credit
This course will provide orientation activities and didactic coursework to prepare the students for the mandatory clinical externship experience. Coursework will include orientations to clinical externship facilities, review of policies and protocols, clinical observation requirements, HIPAA regulations and compliance and professional clinical practice issues. Twelve conference hours, 28 experiential hours. Course offered Fall and Spring. Prerequisites: Successful completion of DAS 110, DEN 111, DEN 112, DEN 113, DEN 211.

DAS 117 Biomedical Foundations for Dental Assisting Practice 3 Credits
This course will offer a didactic component that will include higher level science-based theory and case study investigation to expand the student’s educational foundation, clinical application, critical thinking skills and ability to research and interpret new technologies and procedures to enhance patient treatment and promote oral health care. Three class hours. Course offered Spring only.

DAS 120 Clinical Dental Assisting Practice 4 Credits
This course is the clinical phase of the program and will emphasize practical application of clinical dental assisting skills as students rotate through various dental practice facilities. Students will have opportunities to observe procedures, actively practice dental assisting functions and work with dental professionals in general dentistry and specialty practice settings. A conference component provides an opportunity to discuss clinical experiences, introduce advanced and alternative treatment modalities, discuss patient education and patient management issues, learn about medically compromised patients and emergency procedures and discuss ethical, legal and professionalism issues related to dental practice and patient treatment. Twenty two and a half (22.5) clinical hours and one conference hour per week. Course offered Spring only. Prerequisite(s): Successful completion of DAS 110, DEN 111, DEN 112, DEN 113, DEN 211.

DAS 121 Dental Assisting Clinical Experience 1 Credit
This course accompanies DAS 117 and includes the clinical experience requirements necessary for completion of the Dental Assistant Rapid Track (DART) program. Students must successfully pass all skill competencies and meet or exceed the specific clinical experiences and hour requirements. This course will provide an opportunity to apply dental assisting skills in a clinical setting. Students will actively participate in and practice dental treatment procedures in both general dentistry and specialty areas. Specific skill competency will include those functions/procedures allowed by the New York State Education Law. 500 experiential hours. Course offered Fall and Spring.

DAS 122 Advanced Biomedical Sciences for Dental Assisting Practice 2 Credits
This course will focus on didactic content in biomedical sciences to provide the foundational knowledge to assess and adapt to individual patient needs, provide relevant and current patient education, deliver safe and effective patient treatment and understand oral diseases and treatment options. Topics will include: embryology and histology, preventive dentistry, oral pathology, microbiology, nutrition and pharmacology. Two class hours. Course offered Spring only. Prerequisite(s): Successful completion of DAS 110, DEN 111, DEN 112, DEN 113, DEN 211.
DAS 227 Dental Specialties Procedures 2 Credits

This course will focus on treatment procedures specific to a variety of dental specialty practices. Topics will include treatment procedures, instrumentation and armamentarium for treatment, patient education, pre and post-operative instruction, patient management techniques and the role and responsibility of the dental assistant in each specialty practice. Laboratory practice will focus on practice of competency skills including expanded functions that support and deliver patient treatment. One class hour and two laboratory hours per week. Course offered Spring only. Successful completion of all first semester DAS and DEN courses.

DAS 290 Independent Study Variable Credit

See the Department Chairperson. Course offered Fall and Spring.

DEN - Dental Hygiene

DEN 110 Dental Health Education 1 Credit

Emphasis is placed on the philosophies of education, communication skills and motivational techniques as they apply to individuals and group health education. Also included are planning, organizing and evaluating chairside dental health education, methods of presentation, and use resource material. One class hour. Course offered Fall only. Prerequisite: Minimum grade of C is required in this course to continue in the program for DEN students and a C- for DAS students.

DEN 111 Dental Radiography I 2 Credits

An introduction to physics and biology of radiation; radiation hygiene; equipment and materials; film exposure and processing, technique and chemistry. One class hour, two laboratory hours. Course offered Fall only. Prerequisite: Minimum grade of C is required in this course to continue in the program for DEN students and a C- for DAS students.

DEN 112 Oral Anatomy and Physiology I 2 Credits

This course includes anatomical identification of and discussion of function of the structures of the oral cavity and the surrounding landmarks of the face and head. Clinical application will be discussed concerning occlusion, anesthesia, mastication, radiographic interpretation, and identification of variations in anatomy. Two class hours, one conference hour. Course offered Fall only. Prerequisite: Minimum grade of C is required in this course to continue in the program for DEN students and a C- for DAS students.

DEN 113 Barrier Precautions and Infection Control Measures 1 Credit

Focuses on the scientifically accepted principles and practices of infection control. This course will provide the student with the core elements on infection control and barrier precautions. One class hour. Course offered Fall only. Prerequisite: Minimum grade of C is required in this course to continue in the program for DEN students and a C- for DAS students.

DEN 114 Dental Hygiene I 2 Credits

An introduction to dental and dental hygiene practice; basic concepts, methods materials and techniques of dental hygiene care. Two class hours. Course offered Fall only. Prerequisite: Minimum grade of C is required in this course to continue in the program for DEN students and a C- for DAS students.

DEN 115 Clinical Dental Hygiene I 2 Credits

Emphasis in this course is placed on the practical application of dental hygiene care. Students will be required to be a partner for technique practice. Six clinical hours. Course offered Fall only. Prerequisite: Minimum grade of C is required in this course to continue in the program for DEN students and a C- for DAS students.

DEN 116 Dental Hygiene II 2 Credits

Continuation of DEN 115. Anatomical landmarks; deviations from normal; evaluation of radiographs. Extra and intraoral projections. One class hour, two laboratory hours. Course offered Spring only. Prerequisite: Minimum grade of C is required in this course to continue in the program for DEN students and a C- for DAS students.

DEN 117 Oral Hygiene II 2 Credits

This course will study the embryologic development of the face, oral cavity and the teeth and histologic structure of the teeth and oral tissues, and review developmental conditions and anomalies related to dental and oral structures. Function and variations in function will be review as well as the clinical significance and application of knowledge to patient evaluation and treatment. Two class hours, one conference hour. Course offered Spring only. Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 118 Oral Hygiene III 2 Credits

Continuation of DEN 117. Emphasis in this course is placed on the practical application of dental hygiene care. Two class hours. Course offered Spring only. Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 119 Oral Hygiene IV 2 Credits

Continuation of DEN 118. Emphasis in this course is placed on the practical application of dental hygiene care. Two class hours. Course offered Spring only. Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 120 Dental Hygiene III 2 Credits

This course will provide the student with knowledge regarding the foundation of community dentistry and its role in society. Students will explore the primary fields involved in assessing and improving the public’s dental health, including epidemiology and biostatistics. In addition, students will gain experience in evaluating scholarly dental literature. One class hour. Course offered Fall only. Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 121 Dental Materials 2 Credits

This course includes a study of the physical and chemical properties, manipulation of and uses for the most commonly used dental materials. A lecture component will present background information about the dental materials and a laboratory component will present the practical application for each material (demonstration and lab practice). One class hour, two laboratory hours. Course offered Fall and Spring. Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 122 Oral Anatomy and Physiology II 2 Credits

This course will study the embryologic development of the face, oral cavity and the teeth and histologic structure of the teeth and oral tissues, and review developmental conditions and anomalies related to dental and oral structures. Function and variations in function will be review as well as the clinical significance and application of knowledge to patient evaluation and treatment. Two class hours, one conference hour. Course offered Spring only. Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 123 Oral Pathology I 1 Credit

A brief introduction to principles of general pathology and inflammation. Students will learn to identify and describe normal and abnormal oral soft tissue lesions. Emphasis will be on pathology of oral mucosa, dental tissues and related structures. Developmental anomalies of teeth and anatomical variation of oral soft tissues will be studied; also systemic diseases and their oral manifestations. One class hour. Course offered Spring only. Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 124 Dental Hygiene II 1 Credit

This course continues to build knowledge for dental hygiene care, treatment planning, and case management. One class hour. Course offered Spring only.

DEN 125 Clinical Dental Hygiene II 4 Credits

The beginning level of clinical patient care utilizing primary level skills in patient histories, exams, patient education, treatment, planning, and record keeping. Students are required to recruit patients in order to meet clinical requirements. Twelve hours clinical practice. Course offered Spring only. Prerequisite: BIO 134 or BIO 142, and successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 126 Dental Hygiene III 2 Credits

This course will focus on treatment procedures specific to a variety of dental specialty practices. Topics will include treatment procedures, instrumentation and armamentarium for treatment, patient education, pre and post-operative instruction, patient management techniques and the role and responsibility of the dental assistant in each specialty practice. Laboratory practice will focus on practice of competency skills including expanded functions that support and deliver patient treatment. One class hour and two laboratory hours per week. Course offered Spring only. Successful completion of all first semester DAS and DEN courses.

DEN 127 Dental Hygiene IV 2 Credits

Continuation of DEN 126. Emphasis in this course is placed on the practical application of dental hygiene care. Two class hours. Course offered Spring only. Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 128 Oral Hygiene V 2 Credits

Continuation of DEN 127. Emphasis in this course is placed on the practical application of dental hygiene care. Two class hours. Course offered Spring only. Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 129 Oral Hygiene VI 2 Credits

Continuation of DEN 128. Emphasis in this course is placed on the practical application of dental hygiene care. Two class hours. Course offered Spring only. Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 130 Oral Hygiene VII 2 Credits

Continuation of DEN 129. Emphasis in this course is placed on the practical application of dental hygiene care. Two class hours. Course offered Spring only. Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.
DEN 214 Dental Hygiene III 2 Credits
The focus of this course is on advanced techniques for comprehensive dental hygiene care. Emphasis is placed on case study to help student prepare for the Dental Hygiene National Board. Two class hours. Course offered Fall only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 215 Clinical Dental Hygiene III 4 Credits
Course emphasis will be on comprehensive patient care and treatment planning. Course includes radiographic evaluation. A continuation of clinical skill development begun in DEN 125. Students are required to recruit patients in order to meet clinical requirements. Twelve clinical hours, one hour radiographic evaluation. Course offered Fall only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 216 Dental Therapeutics I 1 Credit
Systematic approach to general principles of pharmacology. Study of commonly used agents in dentistry, drugs used in specific medical conditions, and drugs used in management of medical emergencies. Introduction to newer drugs and new effects of old drugs. Brief discussion on controlled drugs and drug abuse. One class hour. Course offered Fall only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 217 Dental Specialties 1 Credit
This course examines the essential components, clinical procedures performed, and armamentarium (instruments/equipment) used in the various dental specialties. Students will learn the interactive roles of each dental team member in the practice of the dental specialties. Introduction to the clinical advances and new trends in dentistry is included. One class hour. Course offered Fall only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 218 Periodontics II 1 Credit
Continuation of study of drugs significant to dental practice. Emphasis will be on evaluation and dental management of medically compromised patients with special attention to their medications and drug interactions. One class hour. Course offered Spring only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 219 Periodontics III 1 Credit
Various periodontal surgical procedures will be reviewed in this course. Students will learn pre and post care of periodontal patients, post surgical complications, and latest advances in periodontal diagnostics/treatment. Diagnosis and management concepts of various periodontal diseases will be discussed through case-studies format. Students will write a "Perio Paper" (Writing Intensive Course). One class hour. Course offered Spring only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 220 Community Dentistry II 1 Credit
This course will provide the student with knowledge regarding the assessment of community dental health needs, particularly through the use of dental indices and biostatistical measures. Students will explore the methods of oral health promotion, disease prevention, and program planning. One class hour. Course offered Spring only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 221 Dental Hygiene IV 1 Credit
Review of the history of dental hygiene. Course focus will be on ethics, jurisprudence, current issues and trends in dental hygiene. One class hour. Course offered Spring only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 222 Clinical Dental Hygiene IV 4 Credits
Improvement of clinical skills developed in DEN 215. Students will continue to develop advanced clinical skills, comprehensive dental hygiene treatment plan, total patient care and supportive periodontal treatment (SPT). Course includes radiographic evaluation. Students are required to recruit patients in order to meet clinical requirements. Twelve clinical hours, one conference hour (radiographic evaluation). Course offered Spring only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 223 Dental Therapeutics II 1-3 Credits
Continuation of study of drugs significant to dental practice, with special attention to their medications and drug interactions. Emphasis will be on evaluation and dental management of medically compromised patients. One class hour. Course offered Spring only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 224 Dental Hygiene IV 1 Credit
See the Department Chairperson. Course offered Fall and Spring.

DEN 225 Clinical Dental Hygiene IV 4 Credits
Improvement of clinical skills developed in DEN 215. Students will continue to develop advanced clinical skills, comprehensive dental hygiene treatment plan, total patient care and supportive periodontal treatment (SPT). Course includes radiographic evaluation. Students are required to recruit patients in order to meet clinical requirements. Twelve clinical hours, one conference hour (radiographic evaluation). Course offered Spring only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 226 Dental Therapeutics II 1-3 Credits
Continuation of study of drugs significant to dental practice. Emphasis will be on evaluation and dental management of medically compromised patients with special attention to their medications and drug interactions. One class hour. Course offered Spring only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 227 Dental Office Management and Business Practice 1 Credit
This course will help prepare the dental studies student for the job market, and will emphasize dental office management and job seeking skills. One class hour. Course offered Spring only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 228 Periodontics III 1 Credit
This course examines the essential components, clinical procedures performed, and armamentarium (instruments/equipment) used in the various dental specialties. Students will learn the interactive roles of each dental team member in the practice of the dental specialties. Introduction to the clinical advances and new trends in dentistry is included. One class hour. Course offered Fall only.
Prerequisite: Successful completion of all previous semesters DEN courses with a grade of C or better.

DEN 229 Dental Hygiene IV 1 Credit
See the Department Chairperson. Course offered Fall and Spring.

DEN 230 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

EBL - Experiential and Adult Learning

EBL 101 Experience Based Learning 3 Credits
Experienced Based Learning is a credit bearing work-based program that allows day or evening students to work at a job related to their career interest while continuing an appropriate classroom education. An interested student is responsible for locating an employer willing to provide him/her a paid or unpaid position for one semester, fall, spring, or summer. This experience based learning option may not be repeated for credit. Three credits.
Permission of Director Adult and Experiential Learning or Director Academic Services is required. Course offered Summer only.

ECE - Education and Early Care

ECE 110 Seminar for Early Childhood Care Givers 1 Credit
This course focuses on professional development for the early childhood care giver. It provides a comprehensive study of the current opportunities for professional development, examination of state and national standards and requirements, identification of roles and settings within the early care and education field, and will lead to the design of an individualized plan for each care giver to follow for career advancement. One class hour. Course offered Fall and Spring.

ECE 130 Field Work Child Care Practitioner I 3 Credits
Students in this course will have the opportunity to receive hands on group experience in licensed child care centers or Head Start facilities. Weekly meetings with experienced education instructors will coincide with curriculum for ECE 150 and ECE 151. One class hour. Ninety experiential hours. Course offered Fall and Spring.
Prerequisite(s): ECE 150 and ECE 151.

ECE 150 Exploring Early Care and Education 3 Credits
This course will lay the foundation for understanding the field of early childhood education. Child development pre-birth through age 3 will be discussed. Participants will gain an understanding of how to arrange a safe, healthy learning environment, while focusing on a child's social emotional well being. Supportive guidance techniques will be addressed, as well as observation and assessment skills, in addition to the value and importance of play in children's lives. Three class hours. Course offered Fall and Spring.
ECE 151  Developmentally Appropriate Practice for Young Children  3 Credits
This course will lay the foundation for understanding the field of early childhood education. Child development pre-birth through age 8 will be discussed. Participants will gain an understanding of how to arrange a safe, healthy learning environment, while focusing on a child’s social emotional well being. Supportive guidance techniques will be addressed, as well as observation and assessment skills, in addition to the value and importance of play in children’s lives. Three class hours. Course offered Fall and Spring.

ECE 152  Early Childhood Quality Practices for Professionals  2 Credits
This course addresses three key components of practice in the field of early care and education: program management, working with families and professionalism. Students will engage in critical thinking on issues plaguing the field as they participate in practical exercises for direct application to their work with children and families. Three class hours. Course offered Fall and Spring.

ECE 200  Developing Early Literacy  3 Credits
This course examines emotional, socio-cultural and cognitive influences on early literacy development, and explores twelve essential concepts related to early reading success through a collaborative learning approach. Three class hours. Spring Semester only. Course offered Spring only.

ECE 230  Field Work Child Care Practitioner II  3 Credits
Students in this course will have the opportunity to receive hands on group experience in licensed child care centers or Head Start facilities. Weekly meetings with experienced education instructors will coincide with curriculum for ECE 152. One class hour. Ninety experiential hours. Course offered Fall and Spring. Prerequisite: ECE 152.

ECE 250  Infant and Toddler Development  3 Credits
This course is designed for individuals who are currently working in early care and education settings; students interested in a career involving children and families; students who are or will be parents. The course is one in a series of four designed to meet the required content areas of the New York State Infant/Toddler Credential, and can also fulfill the 30-hour training requirement for licensed providers. Upon successful completion of this course the student will understand how to design a safe and healthy learning environment which supports infant/toddler development and nourishes the child’s aesthetic sensibilities. Three class hours. Course offered Fall and Spring. Prerequisite: ECE 250.

ECE 290  Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

ECE 251  Family and Culture  3 Credits
This course is designed to create awareness and understanding of the delicate balance and importance of family and cultural impact on the lives of infants and toddlers. Students will learn how to identify and articulate differing parenting styles as well as develop effective communication skills. Course offered Fall and Spring.

ECE 252  Designing Environments and Curriculum for Infants and Toddlers  3 Credits
This course is designed for individuals who are currently working in early care and education settings; students interested in a career involving children and families; students who are or will be parents. The course is one in a series of four designed to meet the required content areas of the New York State Infant/Toddler Credential, and can also fulfill the 30-hour training requirement for licensed providers. Upon successful completion of this course the student will understand how to design a safe and healthy learning environment which supports infant/toddler development and nourishes the child’s aesthetic sensibilities. Three class hours. Course offered Fall and Spring. Prerequisite: ECE 250.

ECE 253  Professionalism in Early Care and Education  3 Credits
This course is the fourth in a series designed for individuals who are currently working in early care and education programs, or students who are interested in a career involving children and families. The course content is part of the 30-hour requirement for the New York State Infant/Toddler Early Care and Education Credential, and can also fulfill the New York State 30-hour professional development requirement for licensed providers. Three class hours. Course offered Spring only. Prerequisite: ECE 250.

ECO 101  Introduction to Economics  3 Credits
A one-semester, non-technical course designed to answer questions about the economy. How and why does our market economic system work? Why is there inflation and/or unemployment and what are their remedies? How does the government influence your future economic well-being? Where are we on the business cycle? What are the causes and consequences of our growing national debt? What is the Federal Reserve and how does its monetary policy affect you and the interest rate? How is the emerging global interdependence of countries changing our economy and your life? This course will help you understand the economic environment in which you live, work, and vote. This course is not recommended as a Social Science Elective for students enrolled in A.S. programs in Business Administration or International Business. Three class hours. (SUNY-SS) Course offered Fall and Spring.

ECO 103  Personal Money Management  3 Credits
A very practical course which teaches you how to create a financial plan to realize goals, such as home ownership and early retirement. By taking this course, you will learn how to avoid credit trouble, save money on automobile purchases, and buy a desirable home. You will also learn how to protect yourself from financial disaster through the purchase of the lowest cost and safest insurance policies. Finally, you will learn how to make your money grow by investing in stocks, bonds, and mutual funds. Using the techniques you learn in this class will allow you to plan, save, and spend wisely so you and your family will enjoy a better way of life. Three class hours. Course offered Fall and Spring.

ECO 10  Personal Investing  3 Credits
This course is about making money. You will learn the “ins” and “outs” of investing in stocks, bonds, and mutual funds. You will simulate investing using current market data to choose the best stock and bond mutual funds. Learn to use tax advantaged methods of investing, such as 401K plans and IRA’s to help your money grow. Additional investment choices will be examined, such as real estate, options, and collectibles. Upon completion of the course, you will have an understanding of Wall Street, the Dow Jones, and various financial markets. Three class hours. Course offered Fall and Spring.

ECO 111  Principles of Microeconomics  3 Credits
This course will help you gain insight and understanding into events that are constantly going on around you. You will learn how to think like an economist by analyzing everything critically, comparing costs and benefits, even in issues normally considered outside the scope of economics. You will use economic reasoning to decide whether you will read your book of economics, whether you will attend class, whom you will marry, and what
kind of work you will likely go into after you graduate. The skill you will need to start thinking like an economist will be acquired from topics covered, such as opportunity cost, scarcity and choices, demand, supply, production and costs, the market system, elasticity, market structures, etc. Three class hours. (SUNY-SS) Course offered Fall and Spring.

Prerequisite: Intermediate Algebra or MTH 104.

ECO 112 Principles of Macroeconomics 3 Credits
Course focuses on the on-going concerns of the United States economy, unemployment, inflation, and gross domestic product. International economics is woven throughout the course helping to explain the impact of the globalization of our economy and your economic future. To illustrate and aid the student's understanding of these concepts and topics, the course makes extensive use of current events. Students will gain a full view of the current United States economic environment and macroeconomic theory. This course explores macroeconomic models and approaches, such as national income accounting, circular flow, aggregate demand and aggregate supply, and fiscal and monetary policy. Three class hours. (SUNY-SS) Course offered Fall and Spring.

Prerequisite: ECO 111 with a grade of C or higher.

ECO 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

EDU - Education

EDU 100 Introduction to the Teaching Profession 1 Credit
A seminar introducing students to the field of teaching. Topics include current learning standards, lesson plan components, the realities of teaching as a career, certification requirements, professional expectations, and an introduction to teaching strategies. This course provides students with the opportunity to explore the field of teaching, reflect on their interest in education, create and present an instructional lesson, and develop connections with other future educators. One class hour. Course offered Fall and Spring.

EDU 150 Performance and Presentation Skills for Educators 3 Credits
Teachers must communicate effectively in order to achieve their goal of student learning and success. This course uses the performing arts as a point of reference and enables participants to develop materials and present them effectively in a variety of teaching situations. Learning styles, oral presentation, body language, the use of props, proxemics and room arrangement, and audio visuals will be the skills developed through this course. These skills will be compared to those used in a variety of performing arts venues so that appropriate stage techniques can be integrated into student teaching/presentations assignments. This fulfills the MCC requirement for a humanities elective. Three class hours. (SUNY-A) Course offered Fall and Spring.

EDU 200 Foundations of Education 3 Credits
This course will explore the American education system through a social justice perspective. It will focus on the foundations of the American education system, with emphasis on the historical, philosophical, and socio-cultural roots of education. In addition, students will explore the influences of the political, economic, legal and ethical bases of American education and will research and present on relevant educational policies. Within this framework, contemporary educational values and issues will be critically examined. Three class hours. Course offered Fall and Spring.

Prerequisite: EDU 100 or MTH 104.

EDU 208 Guided Observation in Education 3 Credits
Guided Observation in Education is designed to provide the student with an opportunity to (1) explore the profession of teaching at an early point in the student’s academic career, (2) observe in a classroom from the perspective of a teacher, (3) meet with the classroom teacher to discuss issues covered in the seminar and issues that arise in the classroom, (4) participate in classroom activities addressing unmet educational needs such as: lesson planning, working with small groups, one-on-one support, and (5) reflect on course objectives as experienced through fieldwork placement. This course fulfills the MCC requirement for a social science elective. One and one-half class hours, four fieldwork hours. Upon successful completion of this course, students will earn 20 hours of service-learning credit. Course offered Fall and Spring.

Prerequisite: EDU 200 with a grade of C or higher and PSY 201 or PSY 202 with a grade of C or higher.

ELT - Electrical Engineering Technology/Electronics

ELT 101 Electric Circuit Analysis I 4 Credits
First course in a two-semester algebra-based electric circuit analysis sequence for majors in Electrical Technology, and others interested in a course of this level. Topics include voltage, current, resistance, Ohm’s law, resistor combination, Kirchhoff’s laws, power, source conversion, capacitance, superposition, mesh and nodal analysis, Thevenin’s and Norton’s theorems. Computer analysis of DC circuits introduced. Concurrent lab applies classroom theory, teaches use of multimeters and power supplies, and introduces the oscilloscope, breadboarding, schematic reading and troubleshooting. Two class hours, four laboratory hours, one conference hour. A scientific calculator is required. Contact the department for details. Course offered Fall and Spring.

Prerequisite: Three years high school math or MTH 135 or MTH 098/104/164.

ELT 102 Electric Circuit Analysis II 5 Credits
Continuation of ELT 101 into AC circuit analysis using complex numbers and phasors. Topics include: magnetism, inductance, reactance, impedance, power, resonance, filters, Fourier series, transformers and dependent sources. Includes network analysis using Thevenin, Norton, mesh, and nodal techniques. Computer analysis of AC circuits is introduced. Concurrent lab applies theory and develops competence in measuring voltage, current, time, frequency, phase, and frequency response, using the dual-trace oscilloscope, multimeters, and swept frequency function generator. Construction project is a power supply which is used to introduce rectifiers, filters, regulation and ripple. Three class hours, four laboratory hours, one conference hour. A specific programmable scientific calculator is required. Contact Department for details. Course offered Spring only.

Prerequisites: ELT 101 or ELT 121 required; MTH 140 or MTH 135 or MTH 164 or some trigonometry background recommended.

ELT 111 Introduction to Digital Electronics 3 Credits
Covers a wide range of introductory skills and techniques required by an electronic technician. Topics include AND, OR, NAND, NOR, NOT logic functions and integrated circuits, Boolean Algebra, number systems, flip-flops and simple applications. Two class hours, three laboratory hours. Course offered Fall only.

Prerequisite: Level 6 Math placement or MTH 098 with a grade of C or higher or equivalent.
ELT 112  Linear Circuits  5 Credits
Covers a wide range of introductory skills and techniques required by an electronic technician. Topics include semiconductor physics, general purpose and zener diodes, linear power supplies, transistors, transistor amplifiers, and basic operational amplifiers. Three class hours, four laboratory hours. Course offered Spring only. Prerequisite(s): ELT 111 with a grade of C- or better (required) and ELT 102 (taken concurrently or previously completed); TEK 101 (recommended).

ELT 121  AC/DC Circuit Analysis  4 Credits
A one-semester algebra-based electric circuit analysis course for majors mainly in Electrical Engineering Technology, Mechanical Engineering Technology and Optical Technology, as well as others requiring an introduction to both DC and AC signal driven circuit analysis of series, parallel and series parallel resistive circuits and series RC circuits. Topics include: voltage, current, resistance, conductance, Ohm’s law, Kirchoff’s Voltage and Current laws, voltage and current divisors equations, power, capacitance, a brief introduction to inductance, RC time constant circuits, capacitive reactance and impedance, superposition, Thevenin, Norton, Theorems, computer analysis, and an introduction to troubleshooting. Lab teaches use of digital multimeters, analog VOM, power supplies, dual-trace oscilloscope, function generators, and an introduction to computer generated circuit analysis using Multisim, the concept of circuit loading and meter frequency limitations. Three class hours, four laboratory hours. Course offered Fall and Spring. Prerequisite: High school algebra with some trigonometry or MTH 135.

NOTE: Students with no trigonometry should consider taking MTH 164 concurrently.

ELT 130  System Electricity  3 Credits
This course introduces students to basic principles of electricity with an emphasis on their use in technical applications. While learning basic theorems of electricity and completing problem solving exercises, students build and test simple electrical circuits and become familiar with the use of basic test equipment. They also build and test a simple robotic car that uses electrical and electronic circuits in its operating functions. Two class hours, two laboratory hours. Course offered Fall and Spring. Prerequisite/conequisite: MTH 104 or MTH 135 or permission of department.

ELT 134  Introduction to Programmable Logic Controller  3 Credits
This course will provide the fundamentals of a programmable logic controller (PLC). Hands-on instruction and industrial type applications of PLCs requiring relay ladder logic control and a study of automated manufacturing and the functions of PLCs in an industrial environment will be provided. Topics include components of a PLC, memory organization, discrete input/output, numbering systems, logic gates, Boolean Algebra, relay ladder logic, timers, counters, word level logic, and troubleshooting. The course includes two class hours, two laboratory hours. Course offered Fall and Spring.

ELT 170  Printed Circuit Layout and Fabrication  2 Credits
Students will be introduced to the techniques of fabrication of a printed circuit board. This includes the design of a printed circuit artwork pattern, the process of layout of an artwork positive on acetate, the making of a negative film of the positive artwork using a photographic process, and the fabrication of the printed circuit board from a copper clad board using photo-resist developing, and an etching process. Each student actually will go through these steps and build a small electronic circuit. One class hour, two laboratory hours. Course offered Fall and Spring. Prerequisite: A general knowledge of electricity and electronics.

ELT 201  Linear Systems  4 Credits
A study of linear amplifier and filter circuits. Course topics include small-signal and power amplifiers using bipolar, field-effect transistors and integrated circuits. Frequency response of amplifiers and filters using Bode plots are studied along with the use of negative feedback in systems. Students build, test and troubleshoot amplifier circuits using popular test equipment in the laboratory. The computer (Multisim) is used to analyze single and multistage amplifiers and filters. Three class hours, four laboratory hours. Fall semester only. Course offered Fall only. Prerequisites: ELT 102 and ELT 112 with a grade of C- or better.

ELT 202  Pulse and Digital Circuits  4 Credits
This course covers pulse waveforms, linear circuit responses and switching circuit analysis, pulse-shaping and pulse-generating circuits, flip-flops, one-shots, registers and counters. Different IC logic family characteristics (TTL, NMOS, ECL, CMOS, LVT) will be analyzed and compared. An integral study and analysis of the circuits used when interfacing the different types of IC logic families will be covered. There will be an in-depth analysis and practical applications of the various digital number systems and codes. Arithmetic manipulation of signed and unsigned binary numbers will be also covered. An introduction to the 8-bit microcomputer architecture will be presented. The student will perform computer analysis of digital circuits using the “Electronics Workbench Multisim” software. By means of a Capstone design project, this course offers an integrated learning experience that was designed to give the students a hands-on, real world engineering problem solving experience. Students will design, build, troubleshoot, demonstrate and present a digital capstone design project. Several laboratory experiments throughout the semester will require formal written reports. Three class hours, four laboratory hours. Course offered Fall only. Prerequisites: ELT 102 and ELT 112 with a grade of C- or better, or permission of department.

ELT 204  Industrial Electronics and Control  4 Credits
A survey of electronic circuits and systems in industrial and control settings. Topics include a description of various popular sensors, industrial electronic devices such as SCRs, Triacs, and UJTs, ladder diagrams using relays and their solid-state equivalents, actuating devices including a large number of motors and controllers, and finally the use of programmable logic controllers. The student builds and tests a number of industrial electronic circuits and controllers in the laboratory. The computer (LabVIEW) is used to analyze, emulate, and test various control systems. Three class hours, three laboratory hours. Course offered Spring only. Prerequisites: ELT 201 and 202 with a grade of C- or better, or permission of department.

ELT 205  Communication Systems  5 Credits
An introduction to radio communication theory. Topics include oscillation, tuned and rf amplifiers, transmission line effects, matching techniques using the Smith chart, spectral analysis using the Fourier series, AM/FM/SSB transmitter and receiver designs, video and stereo designs, and data communication. In the laboratory, students build and test communication circuits using an assortment of popular devices and test equipment used in this field. The computer (Multisim) is used to emulate, analyze, and collect data for communication circuits and systems. Spring semester only. Three class hours, five laboratory hours. Course offered Spring only. Prerequisite: ELT 201 with a grade of C- or better, or permission of department chairperson.

NOTE: In addition to prerequisite, ELT 202 is recommended.

ELT 206  Digital Systems and Microprocessors  5 Credits
A study of digital systems and the building blocks that make up digital systems. The emphasis will be on microprocessor-based systems hardware, programming and interfacing. The major topics include arithmetic circuits, multiplexers, demultiplexers, decoders, encoders, tri-state bus devices, DACs and ADCs, memory devices (SRAM, DRAM, Flash, PLD’s, ROM), microprocessor architecture, microcomputer architecture, I/O modes and interfacing, digital communication standards. The student will learn to program an 8-bit microprocessor (MC68HC11) in assembly language, and will develop the hardware and software for microprocessor-controlled applications. The student will be introduced to a 16-bit microprocessor (MC68000). Major differences between 8-bit and 16-bit microprocessors will be discussed. The lab portion of the course will concentrate on building, testing, and troubleshooting of digital systems including MC68HC11 and MC68000 based microcomputer systems, using oscilloscope, logic analyzer, signature analyzer and computer. Three class hours, five laboratory hours. Course offered Spring only. Prerequisite: ELT 202 with a grade of C- or better, or permission of department.
ELT 231  System Control Electronics  3 Credits
An advanced level course that covers the programming and applications of a Programmable Logic Controller (PLC). It will focus on program troubleshooting, hardware troubleshooting, data manipulation, math instructions, subroutines, and event-driven and time-driven sequences. Advanced topics such as HMI devices, PID, HMI, data communications, and SCADA will be discussed. Two class hours, two laboratory hours. Course offered Fall and Spring. 
Prerequisite: ELT 130.

ELT 232  System Electronics  4 Credits
This course introduces students to the use of analog and digital electronics in the control of electrical and nonelectrical processes. Students are introduced to the use of sensors, actuators, and control circuitry along with the use of micro-controllers in controlling various processes. Three class hours, two laboratory hours. Course offered Fall only. 
Prerequisite: ELT 130 or PHY 231 or ELT 121.

ELT 234  Advanced Programmable Logic Controllers  3 Credits
An advanced level course that covers the programming and applications of a Programmable Logic Controller (PLC). It will focus on program troubleshooting, hardware troubleshooting, data manipulation, math instructions, subroutines, and event-driven and time-driven sequences. Advanced topics such as HMI devices, PID, HMI, data communications, and SCADA will be discussed. Two class hours, two laboratory hours. Course offered Fall and Spring. 
Prerequisite: ELT 134

ELT 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

EMS - Emergency Medical Services

Emergency Medical Services courses are offered by the Public Safety Training Center. For other courses offered at the Center, see Police: Law Enforcement and Public Safety Training. Course offered Fall and Spring.

EMS 101  EMS First Responder  3 Credits
This course is for non-ambulance professional rescuers who are first to arrive at an emergency medical scene to provide pre hospital care. Topics covered are patient assessment, CPR review, airway, shock, wound management, full body immobilization, and initial treatment for other medical emergencies. Students successfully completing this course are eligible for New York State Department of Health Certified First Responder certification. Thirty-six instruction hours, thirty laboratory hours. Course offered Spring only. 
Prerequisite: EMS 110 or EMS 119

EMS 109  EMS First Responder Recertification  1 Credit
This course is for students who wish to update their knowledge and skills learned in EMS 101. In addition to assessment and treatment updates, the students will prepare for recertification as a New York State Certified First Responder by visiting topics of patient assessment, airway management, circulatory emergencies, trauma, and selected medical emergencies. Thirteen instruction hours, two laboratory hours. Course offered Fall and Spring. 
Prerequisite and or corequisite: EMS 101 or equivalent.

EMS 110  Emergency Medical Technician  6 Credits
This course is designed for students to become an Emergency Medical Technician (EMT). The primary focus of the EMT is to provide basic emergency medical care and transportation for critical and emergent patients who access the emergency medical system. The course will teach the basic knowledge and skills necessary to provide patient care and transportation. EMTs function as part of a comprehensive EMS response, under medical oversight. EMTs perform interventions with the basic equipment typically found on an ambulance. The EMT is a link from the scene to the emergency healthcare system. Successful completion of this course leads to eligibility to take New York State EMT Certification Exams. Seventy-two instruction hours, seventy-two laboratory hours. A minimum of 10 hours additional clinical (experiential) time is required outside the regular class hours. Course offered Fall and Spring.

EMS 118  EMT-Basic Core Review  2 Credits
This course is designed for New York State Certified EMTs to meet their recertification needs in reviewing the core material of the EMT Basic Curriculum. Material is presented in areas of Airway, Patient Assessment, Medical Emergencies, Behavioral Problems, Trauma, Obstetrics, Pediatrics, and Contemporary Issues in EMS. This course meets New York State requirements for 24 hours of core reviews described in the NYS Department of Health EMS Recertification through Continuing Education. This course will also cover the “Mandatory Optional Topics” of Weapons of Mass Destruction and Geriatrics. Twenty-eight instruction hours. Course offered Fall and Spring. 
Prerequisite: EMS 110 or EMS 119

EMS 119  Emergency Medical Technician Recertification  3 Credits
This course is for individuals who are certified as emergency medical technicians and need recertification and updating for the purpose of maintaining their competency in providing emergency medical care. The course presents students with both a review and update of the topics covered in the Emergency Medical Technician course (EMS 110). Recent changes in the prehospital emergency medical care field are emphasized. Thirty instruction hours, twenty-five laboratory hours. Course offered Fall and Spring. 
Prerequisite: EMS 110 or equivalent.

EMS 141  Operational Management for Emergency Medical Services  3 Credits
This course will allow EMS providers to more fully understand the many components of the emergency medical services system. Students will also learn essential leadership styles for both routine and emergency situations that are common in emergency medical services. Forty-five instruction hours. Course offered Fall and Spring.

EMS 142  Administrative Management for Emergency Medical Services  3 Credits
This course will prepare EMS providers to act as an officer in an agency by discussing legal requirements, budgeting, planning, research and analysis. The focus of this course is New York State Department of Health requirements and regional accepted practices. Eight instruction hours. Course offered Fall and Spring.

EMS 171  Critical Trauma Care  1 Credit
This course contains practical and lecture material showing state-of-the-art assessment and treatment techniques for multiple system trauma victims. The course exposes the EMT to patient priority assessment and management concepts that are needed for successful outcomes for victims of life threatening trauma. Topics include rapid extrication, kinetics of trauma, expanded primary survey, the Golden Hour, and trauma centers. Thirteen and one-half class hours, four and one-half laboratory hours. Must be an EMT. Course offered Spring only.
EMS 172  Ambulance - Emergency Vehicle Operator Course  1 Credit
This course is designed to provide operators of ambulances with the knowledge and minimum skills to drive a certified ambulance in accordance with New York State Vehicle and Traffic Law, while reducing the risks to the crew and public resulting in the ambulance being operated safely and efficiently. General topics include ambulance operator selection, legal aspects of operation, communication roles, vehicle characteristics, inspection and maintenance, navigation and routing, basic maneuvers, emergency operation, defensive actions, reviewing the run, and special considerations of emergency vehicle operation. In addition to the classroom hours, participants spend 8 hours in the cab of an ambulance practicing and demonstrating skills on a closed vehicle course. Clean New York State Motor Vehicle Operators License and either a letter of recommendation from sponsoring EMS agency or specific EMS department approval. Eighteen instruction hours, eight laboratory hours. Course offered Fall and Spring.

EMS 210  Emergency Medical Technician-Intermediate  5.5 Credits
This course is designed to provide EMT’s with the medical knowledge and skills necessary to handle advanced pre-hospital procedures. The course focus is on airway management including endotracheal intubation, shock management including intravenous therapy trauma assessment and defibrillation. Students successfully completing this course are eligible to take the New York State Certification exam for Emergency Medical Technician-Intermediate. Thirty-six class hours, twenty-seven hours of laboratory, forty-eight hours of hospital clinical, forty-eight hours of field clinical. Course offered Fall and Spring.  
Prerequisite: EMS 110 or equivalent.

EMS 236  Advanced Cardiac Life Support  1 Credit
This course prepares students for certification by the American Heart Association in Advanced Cardiac Life Support. It provides a systematic approach to the management of life threatening cardiac and respiratory emergencies. Nine and one-half instruction hours, nine and one-half laboratory hours. Must be a physician, physician’s assistant, registered nurse, advanced level prehospital care provider, or student of these disciplines. Course offered Fall only.  
Prerequisite: Must be a physician, physician’s assistant, registered nurse, advanced level pre-hospital care provider, or student of these disciplines.

EMS 239  Paramedic Clinical and Field Experience I  5 Credits
This course provides the paramedic student with an opportunity to apply previously learned knowledge and skills in a supervised clinical setting. Rotations in this course include the emergency department, medical and surgical intensive care, pediatrics and pediatric intensive care, labor and delivery, psychiatric, and prehospital experience. Student must demonstrate competence in certain skills during the course. Two hundred and twenty five experiential hours. Must be currently enrolled in the paramedic certification program. Course offered Spring only.  
Prerequisite: EMS 270 previously completed or taken concurrently.

EMS 240  Paramedic Clinical and Field Experience II  7 Credits
This course provides the paramedic student with an opportunity to apply previously learned knowledge and skills in a supervised clinical setting. Rotations in this course include the emergency department, medical and surgical intensive care, pediatrics and pediatric intensive care, labor and delivery, psychiatric, and prehospital experience. Student must demonstrate competence in certain skills during the course. Three hundred and fifteen experiential hours. Must be currently enrolled in the paramedic certification program. Course offered Fall only.  
Prerequisite: EMS 239

EMS 246  Pediatric Advanced Care  1 Credit
This course presents concepts in advanced airway management and resuscitation of pediatric patients in the emergency setting. Specific topics include special pharmacology for pediatric patients, intravenous infusion, and cardiac resuscitation of pediatric patients. Completion also leads to eligibility for PALS certificate from the American Heart Association. Eight class hours, twelve laboratory hours. Course offered Fall only.  
Prerequisite: EMS 270 or equivalent.

EMS 249  Paramedic Review and Recertification  4 Credits
Emphasis is on knowledge review and update needed by paramedics for recertification. New techniques and knowledge will be presented where appropriate. Fifty-seven instruction hours, nineteen laboratory hours. Must be certified as a paramedic. Course offered Fall only.  
Prerequisite: EMS 110 or equivalent.

EMS 250  12-Lead EKG Interpretation in the Emergency Setting  1 Credit
Designed for the advanced pre-hospital EMS provider and other health professionals involved in treating cardiac patients in the emergency setting. On completion, students will be able to read and classify 12-lead EKGs. Topics include cardiac anatomy review, electrical physiology, axis determination, bundle branch and hemiblocks, 12-lead abnormalities, correlation between EKG changes and location of cardiac damage, and unique cardiac phenomenon. Course offered Fall and Spring.  
Prerequisites: EMS 236 and PST 252.

EMS 255  Paramedic Clinical and Field Experience I  5 Credits
This course provides the paramedic student with an opportunity to apply previously learned knowledge and skills in a supervised clinical setting. Rotations in this course include the emergency department, specialty hospital units, and prehospital experience. Students must demonstrate competence in certain skills during the course. Two hundred and twenty five experiential hours. Must be currently enrolled in the paramedic certification program. Course offered Spring only.  
Prerequisite: EMS 270 previously completed or taken concurrently.

EMS 270  Introduction to Paramedicine  12 Credits
This course is designed to prepare a person to care for the sick and injured at an advanced level of care. Persons must be currently certified as a Basic EMT to be accepted in this course. This course covers topics that include basic anatomy and physiology, pharmacology, respiratory emergencies, venous access and medication administration, airway management, medical documentation, cardiac emergencies, pediatric emergencies, caring for the elderly, and medical emergencies. This course is part of the first phase of a sequence that qualifies candidates to take the certification exam for Paramedic. One hundred forty-five class hours, seventy-six laboratory hours. Course offered Spring only.  
Prerequisite: EMS 110.

EMS 271  Medical Care in Paramedicine  8 Credits
This course builds on the medical concepts learned in Introduction to Paramedicine. Topics include advanced patient assessment techniques, surgical airway procedures, cardiac care including external pacing and cardioversion, 12-lead EKG interpretation, and advanced medical care. Additional emphasis is placed on the EMT-P working as a team member, and identifying the limitations of paramedicine in the emergency medical setting. Ninety-one class hours, sixty laboratory hours. Course offered Fall only.  
Prerequisite: EMS 270, and permission from the Emergency Services Department.

EMS 272  Advanced Trauma Issues in Paramedicine  7 Credits
This course presents material on the advanced concepts in trauma care needed for delivery of emergency medical care at the EMT-P level of practice. Current issues and techniques are covered. Specific topics include surgical airway techniques, chest decompression, advanced treatment for hypoperfusion, and special immobilization techniques. Work is also accomplished in the use of the United Incident Management System, and working with rescue personnel in delivery of care to patients who are entrapped. Ninety class hours, thirty laboratory hours. Course offered Fall only.  
Prerequisite: EMS 270, and permission from the Emergency Services Department.

EMS 279  Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.
ENG 105 Introduction to Literature 3 Credits
An introduction to reading and analyzing these primary genres of literature: fiction, poetry, and drama. The course may also include creative nonfiction. Students will respond critically to readings of different historical and cultural contexts through class discussion and written work. These contexts may include different world views, politics, classes, ethnicity, races, genders, and sexual orientations. Three class hours. (SUNY-H) Course offered Fall and Spring.
Prerequisite(s): Waiver of Accuplacer Reading and sentence level tests; score of 71 or higher on reading test and 82 or higher on sentence level test; or completion of TRS 200 with a C or better; or completion of TRS 105 with a C or higher; or completion of ESL 201 with a C or higher; or ENG 101 with a C or higher.

ENG 106 Literary Focus 3 Credits
An introduction to reading and analyzing literature of special interest. The offerings vary each semester, but all focus on important themes and sub-genres in literature. Students will respond critically to fiction, poetry, and drama of different contexts through class discussion and written work. These contexts may include different world views, politics, classes, ethnicity, races, genders, and sexual orientations. Please see the Department’s webpage for current offerings. Three class hours. (SUNY-H) Course offered Fall and Spring.
Prerequisite(s): Waiver of Accuplacer Reading and sentence level tests; score of 71 or higher on reading test and 82 or higher on sentence level test; or completion of TRS 200 with a C or better; or completion of TRS 105 with a C or higher; or completion of ESL 201 with a C or higher; or ENG 101 with a C or higher.

ENG 108 Literature of the Holocaust 3 Credits
A study of the Holocaust through a variety of genres, including poetry, novels, short stories, plays, memoirs, and children’s literature, in order to gain a better understanding of the ideas presented by the Holocaust as a significant event in world history. Students will study the origins and development of the Holocaust and its political, cultural, economic, and social implications through the lenses of a variety of writers. Three class hours. (SUNY-H) Course offered Fall and Spring.
Prerequisite(s): Waiver of Accuplacer Reading and sentence level tests; score of 71 or higher on reading test and 82 or higher on sentence level test; or completion of TRS 200 with a C or better; or completion of TRS 105 with a C or higher; or completion of ESL 201 with a C or higher; or ENG 101 with a C or higher.

ENG 109 Detective Fiction 3 Credits
Students will read classic and contemporary short stories and novels in sub-genres including golden age, hard-boiled, and police procedural by such authors as Christie, Chandler, Conan Doyle, and Grafton. Students will study the origins and development of genre as a vehicle to examine historical, social, political, intellectual, and cultural contexts. Three class hours. (SUNY-H) Course offered Fall only.
Prerequisite(s): Waiver of Accuplacer Reading and sentence level tests; score of 71 or higher on reading test and 82 or higher on sentence level test; or completion of TRS 200 with a C or better; or completion of TRS 105 with a C or higher; or completion of ESL 201 with a C or higher; or ENG 101 with a C or higher.

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Prerequisite(s): Waiver of Accuplacer Reading and sentence level tests; score of 71 or higher on reading test and 82 or higher on sentence level test; or completion of TRS 200 with a C or better; or completion of TRS 105 with a C or higher; or completion of ESL 201 with a C or higher; or ENG 101 with a C or higher.

ENG 111 The Young Adult Novel 3 Credits
The course will use various critical literary approaches to explore novels from the first Golden Age of children’s literature to its contemporary incarnation in the 21st century as a way to consider the transformation from child to adult and the global socio-cultural concept of the young adult. A variety of subgenres such as Realistic/Historical Fiction, Fantastic/Speculative Fiction, Mystery/Detective, Romance and Creative Nonfiction will be covered with attention given to motifs, archetypes, and themes in such literature. While the course will emphasize the traditional novel, the dominant genre in YA literature, additional genres such as the graphic novel, poetry, drama, and non-fiction will also be explored to properly contextualize the novel within Young Adult Literature as a whole. This course will center on written texts but may also include occasional references to films and other media. Three class hours. (SUNY-H) Course offered Spring only.
Prerequisite(s): Waiver of Accuplacer Reading and sentence level tests; score of 71 or higher on reading test and 82 or higher on sentence level test; or completion of TRS 200 with a C or better; or completion of TRS 105 with a C or higher; or completion of ESL 201 with a C or higher; or ENG 101 with a C or higher.

ENG 115 Fantasy Literature 3 Credits
An exploration of classic, modern and contemporary Fantasy Literature including reading, discussion and written analysis. Various subgenres such as High Fantasy, Magical Realism, Urban Fantasy and Mythic Fantasy will be explored by applying critical, social and historical context and analysis. Attention will be given to motifs, archetypes, themes and key figures/authors. This course will center on written text with occasional references to Fantasy in films and other media. Three class hours. (SUNY-H) Course offered Fall only.
Prerequisite(s): Waiver of Accuplacer Reading and sentence level tests; score of 71 or higher on reading test and 82 or higher on sentence level test; or completion of TRS 200 with a C or better; or completion of TRS 105 with a C or higher; or completion of ESL 201 with a C or higher; or ENG 101 with a C or higher.

ENG 201 Early British Literature 3 Credits
A survey of British literature from the early middle ages to the late eighteenth-century. Possible authors studied include Chaucer, Milton, Shakespeare, and Defoe. Three class hours. (SUNY-H) Course offered Fall only.
Prerequisite(s): English 101 with a C or better, or placement into English 200, or instructor permission.

ENG 202 Modern British Literature 3 Credits
A survey of British literature from the late 18th Century to the present. Focus moves from romantic optimism and the belief in progress to the disillusionment produced by industrialism and global war. Three class hours. (SUNY-H) Course offered Fall and Spring.
Prerequisite(s): English 101 with a C or better, or placement into English 200, or instructor permission.

ENG 203 American Literature to 1885 3 Credits
A survey of American literature from the celebration of the new land in the Colonial Period to the Civil War. Readings and discussion focus on writers such as Franklin, Hawthorne, Poe, Emerson, Thoreau, Melville, Whitman, and Dickinson. Fall semester only. Three class hours. (SUNY-H) Course offered Fall and Spring.
Prerequisite(s): English 101 with a C or better, placement into English 200, or instructor permission.

ENG 204 American Literature Since 1865 3 Credits
A survey of American literature from the Civil War to the present, focusing on the changing values of an increasingly technologically society. Includes the major literary philosophies of the time through writers such as Crane, Hemingway, Faulkner, Baraka, and O’Connor. Three class hours. (SUNY-H) Course offered Spring only.
Prerequisite(s): English 101 with a C or better, placement into English 200, or instructor permission.

ENG 208 Literature of the Bible 3 Credits
A study of the rich literary heritage found in both Hebrew and Christian scripture. The course focuses on such types as: saga, short story, poetry, gospel narrative and apocalyptic writings. Themes include the human struggle to understand the Divine and the nature of good and evil. Three class hours. (SUNY-H) Course offered Fall only.
Prerequisite(s): English 101 with a C or better, placement into English 200, or instructor permission.

ENG 209 Twentieth Century Novel 3 Credits
A study of themes, techniques, and cultural contexts of selected 20th century novels. The course explores eternal human values expressed in the novels such as love, honor, pride, sacrifice and endurance. Representative international authors may include Achebe, Baldwin, Cather, Garcia, Marquez, Hesse, Lessing, Markandaya, Joyce and Kafka. Three class hours. (SUNY-H) Course offered Fall and Spring.
Prerequisite(s): English 101 with a C or better, placement into English 200, or instructor permission.

ENG 210 Literature of the Black Experience 3 Credits
Provides insight into the Black experience through the writings of such representative authors as Dumas, Pushkin, DuBois, Hughes, Wright, Ellison, Cleaver, and Baldwin. Three class hours. (SUNY-H) Course offered Fall and Spring.
Prerequisite(s): English 101 with a C or better, placement into English 200, or instructor permission.
ENG 214  The Short Story  3 Credits
A study of the development of the short story as a
distinctive literary form. Includes writers such as
Chekhov, Poe, Hemingway, Updike, Carver, O'Connor and
Barthelme. Three class hours. (SUNY-H) Course offered
Fall only.
Prerequisite(s): English 101 with a C or better, or
placement into English 200, or instructor permission.

ENG 215  Children's Literature  3 Credits
A survey of classic and contemporary children's works
from Aesop to Rowling. Students will analyze a variety
of different genres such as fables, poems, myths, fairy
tales, picture books, and novels with themes such as evil,
escape, individuality, and the demands of society. Critical
approaches such as historical, psychological, feminist,
and Marxist theories may be discussed and applied to
texts. Three class hours. (SUNY-H) Course offered Fall
and Spring.
Prerequisite(s): ENG 101 with a C or better, or placement
into ENG 200, or instructor permission.

ENG 216  American Minorities in Literature  3 Credits
A study of authors whose literature provides a minority
view of American life. Includes authors of African-
American, Native American, Latino and Asian heritage,
such as Hughes, Giovanni, Momaday, Storm, Thomas,
Pereda, Yutang, Mori. Three class hours. (SUNY-H)
Course offered Spring only.
Prerequisite(s): English 101 with a C or better, or
placement into English 200, or instructor permission.

ENG 217  Women in Literature  3 Credits
Literature in which the roles of women are significant
and help explain contemporary attitudes. The works for
reading and discussion are selected from many cultures,
and cover the period from Biblical to modern times. Three
class hours. (SUNY-H) Course offered Fall and Spring.
Prerequisite(s): English 101 with a C or better, or
placement into English 200, or instructor permission.

ENG 218  Introduction to Shakespeare  3 Credits
Reading, discussion, and written analysis of several
major plays and some of the sonnets. The course
explores Shakespeare's challenging language and the
memorably rendered characters that populate his works,
including kings, queens, lovers, shrews and fools. Themes
such as power, revenge, love, jealousy, ambition and
betrayal will be discussed. Critical approaches including
psychological, feminist, and historical theories may be
presented and applied to the texts. Three class hours. (SUNY-H)
Course offered Fall and Spring.
Prerequisite(s): English 101 with a C or better, or
placement into English 200, or instructor permission.

ENG 220  Introduction to Dramatic Literature  3 Credits
A survey of drama from the ancient Greeks to the end of
the 20th century, with emphasis on dramatic structure
and style. The readings may include international writers
such as Aristophanes, Marlowe, Goldsmith, Ibsen,
O'Neill, Fugard and Childress. Three class hours. (SUNY-
H) Course offered Fall and Spring.
Prerequisite(s): English 101 with a C or better, or
placement into English 200, or instructor permission.

ENG 223  Science Fiction  3 Credits
Reading, discussion, and written analysis of speculative
fiction novels and short stories about human beings
experiencing the changes resulting from science and
technology. Representative authors from Shelley and
Wells, through Clarke and Heinlein, to LeGuin and Delany.
Three class hours. (SUNY-H) Course offered Fall and
Spring.
Prerequisite(s): English 101 with a C or better, or
placement into English 200, or instructor permission.

ENG 224  Literature of Horror  3 Credits
Students will read classic, modern, and contemporary
short stories and novels, with an emphasis on the
historical development of the genre. Attention will be
given to supernatural, psychological, and allegorical
themes and tropes in such fiction, as well as relevant
social and historical background information. The course
will center on written fiction, with occasional reference
to horror in films and other media. Three class hours.
(SUNY-H) Course offered Fall and Spring.
Prerequisite(s): English 101 with a C or better, or
placement into English 200, or instructor permission.

ENG 225  Contemporary Poetry  3 Credits
A study of major poetry from 1940 through the 1990s.
Emphasis is on technique and language, form and
content. Selections are from poets as diverse as Frost
and Ginsberg, Clifton and Rich, Plath and Cummings.
Three class hours. (SUNY-H) Course offered Spring only.
Prerequisite(s): English 101 with a C or better, or
placement into English 200, or instructor permission.

ENG 226  LGBTQ Literature - WR  3 Credits
This course will include examination and analysis of short
stories, drama, memoir, film, and graphic fiction by, for,
and about LGBTQ (lesbian, gay, bisexual, transgender,
queer) people’s lives and experiences. Focus will broaden
to include cultural and social history of LGBTQ rights and
visibility, and the LGBTQ-specific publishing industry.
Coursework will include reading assignments, critical
analysis and essays, and class discussions. This is a
humanities elective. Three class hours. (SUNY-H) Course
offered Fall and Spring.
Prerequisite(s): ENG 101 with a C or better, or placement
into ENG 200, or permission of instructor.

ENG 227  Mythology  3 Credits
Literary, cultural, psychological, and historical study
of mythology including such cultures as Greek, Roman,
Norse, Mid and Far Eastern, African, and mythologies
of Americas. The course emphasizes creation, nature
and hero myths as they shaped ancient civilizations and
discusses how these myths affect global cultures today.
Three class hours. (SUNY-H). Course offered Fall and
Spring.
Prerequisite(s): English 101 with a C or better, or
placement into English 200, or instructor permission.

ENG 228  Reading Popular Culture  3 Credits
A literature course that examines the theories of,
approaches to, and topics within popular culture that
have been or are the conditions for social change.
Utilizing short stories, poetry, novels, and dramatic
literature, students will consider the impact of pop art,
film, radio, television, advertising, comics, fads and
fashion, and everyday culture on the human condition.
Three class hours. (SUNY-H) Course offered Fall and
Spring.
Prerequisite(s): English 101 with a C or better, or
placement into English 200, or instructor permission.

ENG 229  Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall and
Spring.

ENG 230  College Composition  3 Credits
A course emphasizing college-level, source-based
writing (summary, analysis, synthesis, research), with
special attention to critical reading and thinking skills.
Students will draft, revise, and edit multiple thesis-driven
essays. They will also study and practice argument and
persuasion. (ENG 101 or ENG 200 satisfy the composition
requirement for graduation.) Three class hours.
(SUNY-BC) Course offered Fall and Spring.
Prerequisite(s): Waiver of accuplacer reading and
sentence level tests; placement into ENG 101 or ENG 200
(minimum score of 81 on reading test and minimum score
of 65 on sentence level test); or completion of TRS 200
with a C or higher, or completion of ESL 201 with a C or higher,
or ENG 200 placement.
Co-requisite(s): REA 100 is required for students scoring
between 71 and 80.9 on the Accuplacer reading test.
Students may take ENG 101 concurrent with ENG 101 or
may take it prior to ENG 101. Students who take REA 100
before ENG 101 will need to earn a C or better in REA 100
in order to enroll in ENG 101.

ENG - English Writing
ENG 102 Writing From Personal Experience 3 Credits
A writing workshop for students who want to explore the world of their own personal experience. The creative process will be emphasized as well as methods for shaping personal experiences into written expression, both formal and informal. Writing assignments will include journal writing, autobiographical writing, and other nonfictional narrative and descriptive compositions. Three class hours. Course offered Fall and Spring. Prerequisite(s): Waiver of Accuplacer Reading and sentence level tests; score of 71 or higher on reading test and 82 or higher on sentence level test; or completion of TRS 200 with a C or better; or completion of TRS 105 with a C or higher; or completion of ESL 201 with a C or higher; or ENG 101 with a C or higher.

ENG 113 Introduction to Creative Writing-WR 3 Credits
An introductory, skill-building workshop to help students develop techniques that will prepare them to write the short fiction, poetry, and drama expected in ENG 213. Emphasis is on developing observation skills, imaginative leaps, and formal techniques such as image, metaphor, symbol, character, conflict, dialogue, the poetic line, and setting/stage directions. Three class hours. Course offered Spring only. Prerequisite(s): Waiver of Accuplacer reading and sentence level tests; score of 71 or higher on reading test and 82 or higher on sentence level test; or completion of TRS 200 with a C or better; or completion of TRS 105 with a C or higher; or completion of ESL 201 with a C or higher; or ENG 101 with a C or higher.

ENG 200 Advanced Composition 3 Credits
Course focuses on written analysis, oral discourse, evaluation, argument and research. Assignments develop depth and proficiency in using language. Basic composition skills are assumed. Can be taken in place of ENG 101 to satisfy the composition requirement for graduation. This course may not be taken concurrently with ENG 101. Three class hours. (SUNY-BC). Course offered Fall and Spring. Prerequisite(s): Waiver of Accuplacer reading and sentence level tests; score of 100 or higher on reading test and 96 or higher on sentence level test; SAT reading score of 600 or higher, or ACT 26 or higher, or ELA regents 85 or higher or ENG 101 with a C or higher.

ENG 213 Creative Writing 3 Credits
A workshop approach for students interested in doing original writing of short fiction, poetry, and drama. Emphasis is on reading and analytical discussion of students’ work. Three class hours. (SUNY-A) Course offered Fall and Spring. Prerequisite(s): ENG 101 with a C or better, placement into ENG 200 or instructor permission.

ENG 233 Creative Writing Workshop-Poetry - WR 3 Credits
A workshop designed for students interested in advancing their skills in writing poetry. Emphasis is on exploring different approaches to the genre and on drafting, workshopping, and revising original work within the genre of poetry. Three class hours. (SUNY-A) Course offered Fall and Spring. Prerequisite(s): ENG 213 with C or higher (or permission of instructor).

ENG 243 Creative Writing Workshop-Playwriting - WR 3 Credits
A workshop designed for students interested in advancing their skills in writing plays. Emphasis is on exploring different approaches to the genre and on drafting, workshopping, and revising original work within the genre of playwriting. Three class hours. (SUNY-A) Course offered Fall and Spring. Prerequisite(s): ENG 213 with C or higher (or permission of instructor).

ENG 250 Professional Communication 3 Credits
Concentration on practical business and professional communication skills, including writing, speaking, and listening. Emphasis is on clarity, organization, format, appropriate language, and consideration of audience, for both written and oral assignments. Three class hours. (SUNY-BC) Course offered Fall and Spring. Prerequisite: ENG 101 with a grade of C or better or ENG 200 with a grade of C or better.

ENG 251 Technical Communication 3 Credits
Concentration on the writing and speaking skills necessary for the technologies. Emphasis is on preparation, organization, audience, and the effective use of format, supplements, and visuals. Accuracy, clarity, economy, and precision are stressed, for both written and oral assignments. Three class hours. Course offered Fall and Spring. Prerequisite: ENG 101 with a grade of C or better or ENG 200 with a grade of C or better.

ENG 253 Creative Writing Workshop-Nonfiction 3 Credits
A workshop designed for students interested in advancing their skills in writing creative nonfiction. Emphasis is on exploring different approaches to the genre and on drafting, workshopping, and revising original work within the genre of creative non-fiction. Writing Intensive. Three class hours. (SUNY-A) Course offered Fall and Spring. Prerequisite(s): ENG 213 with C or higher (or permission of instructor).

ENG 263 Creative Writing Workshop-Short Fiction 3 Credits
A workshop designed for students interested in advancing their skills in writing short fiction. Emphasis is on exploring different approaches to the genre and on drafting, workshopping, and revising original work within the genre of short fiction. Writing Intensive. Three class hours. (SUNY-A) Course offered Fall and Spring. Prerequisite(s): ENG 213 with C or higher (or permission of instructor).

ENG 273 Creative Writing Capstone: Publishing and the Profession 3 Credits
This course seeks to familiarize students with the processes necessary to furthering their personal and/or professional development as creative writers. To this end, the course will introduce students to the submission process, to transfer opportunities, and to publishing/reading venues both in Rochester and around the country. Three class hours. (SUNY-A) Course offered Fall and Spring. Prerequisites: ENG 233 or ENG 243 or ENG 253 or ENG 263 with C or higher or permission of instructor.

ENR - Engineering Science

ENR 152 Properties of Engineering Materials 3 Credits
An introductory course emphasizing the fundamentals of materials science. Metals, ceramics, and polymers will be studied. Topics will include atomic bonding, crystal structures, defects, diffusion, mechanical properties, phase diagrams, and phase transformations. In addition, fabrication and processing techniques and their relationship to mechanical properties will be examined. Three class hours. Course offered Fall and Spring. Prerequisite: CHE 151.

ENR 153 Mechanical Design and Prototyping 4 Credits
An introduction to solid modeling, computer aided manufacturing, the engineering design process, and machine shop operations. Students will use SolidWorks software to design parts and assemblies. CamWorks software will be used to create tool paths for common 2.5 axis milling operations. Prototyping will be done using manual and CNC mills, lathes, and a 3D printer. Parametric modeling techniques that preserve design intent with dimensioning, geometric relations, external references, equations, and design tables will be emphasized. A design-build project will require students to build a working prototype to the instructor's specifications and then implement a redesign of it. Students will document their design process in both written and oral reports. Three class hours, three laboratory hours. Course offered Fall and Spring.
ENR 157 Digital Systems 4 Credits
This course introduces the basic logic functions, components and methodologies used in the design of digital systems. Digital electronic topics will include the basic logic gates, Boolean algebra, number systems, digital arithmetic, combinational logic circuits, multiplexers, decoders and flip-flops and registers. Digital system applications will include counters, magnitude comparators, Analog-to-Digital and Digital-to-Analog conversions, feedback control, sensor interfacing and signal conditioning. Students will use schematic capture and VHDL programming to implement the digital systems on a Field Programmable Gate Array (FPGA) development board. Various add-on power supply and sensor boards will also be utilized in the laboratory component of the course. The course will culminate in a team design-build project requiring prototype demonstration, written documentation and presentation. Three class hours, three laboratory hours. Course offered Fall and Spring. Prerequisite: MTH 165 or higher.

ENR 161 Computing with Microsoft Excel and LabVIEW 1 Credit
Students will be introduced to methods for solving a variety of engineering related problems using Microsoft Excel and LabVIEW. Microsoft Excel topics will include functions, graphing, matrices, linear regression, statistics, and root finding. Students will use LabVIEW to create programs that include a variety of data types, functions, loop and case structures, and graphical user interfaces. LabVIEW programs will include linear algebra, graphing, and data analysis. The course will conclude with a design project using LabVIEW and LEGO Mindstorms robots. Students will prepare and deliver written and oral reports documenting their design process. Three lab hours. Course offered Fall and Spring. Prerequisite: MTH 165 with a grade of C or higher, or MCC Level 9 Mathematics placement or higher.

ENR 251 Statics 3 Credits
Fundamentals of statics applied to problems of engineering interest. A vector algebra approach will be presented. Topics include equivalent force systems, equilibrium, structural mechanics, friction, properties of surfaces. Three class hours. Course offered Fall. Course offered Spring in odd numbered years. Prerequisites: MTH 211; PHY 161 with a grade of C or higher.

ENR 252 Dynamics 3 Credits
Fundamentals of dynamics applied to problems of engineering interest. Topics include kinematics of a particle, kinetics of a particle, planar kinematics of a rigid body, and planar kinetics of a rigid body. Three class hours. Course offered Spring only. Prerequisite: ENR 251 with a grade of C or higher.

ENR 253 Circuit Analysis I 4 Credits
Basic electrical concepts including passive circuit element models, Kirchhoff’s Laws, operational amplifier models, topological properties of circuits, complete response for RC, RL and RLC circuits; phasor concepts for RLC circuit driven by sinusoidal forcing functions. The laboratory will provide examples of these concepts. Three class hours, three laboratory hours. Offered in Spring during even numbered years. Course offered Fall only. Prerequisites: PHY 161; MTH 212 or MTH 225 taken concurrently or previously completed.

ENR 254 Circuit Analysis II 3 Credits
A continuation of ENR253. Topics include complex power; complex frequency analysis; Laplace transform analysis; transfer functions; passive and active filter design and analysis; Bode plots; magnetically coupled networks; two-port networks; and Fourier series and transforms. Three class hours. Course offered Spring only. Prerequisite: ENR 253 with a grade of C or higher.

ENR 255 Mechanics of Materials 3 Credits
Fundamentals of the theory of elasticity will be presented. Stress-strain relations will be applied to the study of the mechanics of deformable solids including the analysis of beams, shafts, and columns, and the use of energy methods. Three class hours. Course offered Spring only. Prerequisite: ENR 251 with a grade of C or higher.

ENR 256 Thermodynamics 3 Credits
The fundamental concepts of thermodynamics and their application to pure substances. Topics include properties of pure substances, work, heat energy, the first law of thermodynamics, disorder, entropy, second law of thermodynamics. Three class hours. Course offered Fall and Spring. Prerequisites: MTH 211; PHY 161 with a grade of C or higher.

ENR 257 Engineering Design Lab 1 Credit
Students will work in teams to solve an engineering design problem of their choice subject to approval from the instructor. Students will be encouraged to choose a project from an intercollegiate engineering design competition. Teams will design and build a working prototype, keep an engineering notebook, submit a weekly time sheet, create a final design report, and make a final oral presentation. Three laboratory hours. Course offered Spring only. Prerequisite(s): CIT 112 or ELT 112 or ENR 153 or ENR 157 or MET 121 or OPT 151 or TAM 105 or TAM 141

ENR 258 Electric Circuits 3 Credits
The study of electrical principles and their application to pure substances. Topics include properties of pure substances, work, heat energy, the first law of thermodynamics, disorder, entropy, second law of thermodynamics. Three class hours. Course offered Fall and Spring. Prerequisites: MTH 211; PHY 161 with a grade of C or higher.

ENR 259 Engineering Design Lab 1 Credit
Students will work in teams to solve an engineering design problem of their choice subject to approval from the instructor. Students will be encouraged to choose a project from an intercollegiate engineering design competition. Teams will design and build a working prototype, keep an engineering notebook, submit a weekly time sheet, create a final design report, and make a final oral presentation. Three laboratory hours. Course offered Spring only. Prerequisite(s): CIT 112 or ELT 112 or ENR 153 or ENR 157 or MET 121 or OPT 151 or TAM 105 or TAM 141

ENR 261 Matlab Programming 3 Credits
A course that uses structured software programming techniques to implement problem solving methodologies and develop solutions to various engineering problems. Techniques such as numerical and statistical analysis, numerical methods, symbolic solutions and graphical techniques are applied in the solutions. Pseudo-code, and flowcharts are used to develop a structured approach to the problem solution which will often require the development of user-defined functions and decision making programming constructs utilized in short script files. Some larger projects may include the development of a graphical user interface (GUI) to handle the program inputs, solution options and outputs. Three class hours. Course offered Fall and Spring. Prerequisites: ENR 161 or CSC 101, each with a grade of C or better. Co-requisites: MTH 211 (or MTH 211 previously completed with a grade of C or higher)

ENR 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall only.

ESL - English For Speakers Of Other Languages (ESOL)

ESL 100 English for Speakers of Other Languages-Intermediate II: Reading Focus 4 Credits
This course emphasizes the development of reading comprehension of authentic, non-fiction material at the upper intermediate level and includes vocabulary study and discussions of current events in relation to American culture. Class and small group instruction. Six class hours. Course offered Fall and Spring. Prerequisite: Placement at high intermediate level on proficiency tests.

ESL 120 English For Speakers Of Other Languages - Intermediate II: Integrated Skills 7 Credits
This course is designed to promote fundamental fluency in all skills through massive amounts of reading, writing, and oral activities, where the primary emphasis is on meaning. Students will read novels and write and revise a semester-long project on topics of a personal nature. Discussion, small group work, and email will play important roles. Nine class hours. Course offered Fall and Spring. Prerequisite: Placement at high intermediate level on proficiency tests.

ESL 125 English For Speakers Of Other Languages: Multi-Skills I 3 Credits
This course at the upper intermediate level aims to develop fluency in all skills through extensive reading, writing, and discussion. Internet resources will be used. Six class hours; offered evenings only. Course offered Spring only. Prerequisite: Placement at high intermediate level on proficiency tests.
ESL 128 English for Speakers of Other Languages: ESL Through Computers 2 Credits
A course at the intermediate level that encourages the development of all skills with a focus on using computers and the emerging technologies, including word processing, e-mail, Internet research/news, CD-ROM's, scanners, and presentation programs. The course will culminate in individual multimedia presentations. Two laboratory hours. Course offered Fall and Spring. Corequisite: ESL 100 or higher, or permission of program coordinator.

ESL 130 English for Speakers of Other Languages - Advanced I: Integrated Skills - WR 8 Credits
This course builds on the fluency gained in ESL 120. It is designed to promote the development of clarity and completeness in students’ oral and written expression by massive amounts of extensive reading. Students will carry out a written research project related to a theme of their own choosing. The project will bring together data collected through library research and interviews. Discussion and small group work will play an important role. Nine class hours. Course offered Fall and Spring. Prerequisite: ESL 100 and ESL 120 with a grade of C or better, or placement at a low-advanced level on proficiency test; or permission of program coordinator.

ESL 138 English for Speakers of Other Languages: Pronunciation 2 Credits
Awareness-raising of major pronunciation difficulties encountered by non-native speakers of English with opportunities for individual and group practice of specific aspects which hinder communication. Two class hours. Course offered Spring only. Prerequisite: Placement at high intermediate level on proficiency tests, or permission of program coordinator.

ESL 145 English for Speakers of Other Languages - Multi-Skills II 4 Credits
A course at the higher level, that stresses the development of all skills, with particular emphasis on reading and writing. Instruction in a class and workshop setting, with special attention to individual needs. Placement at low-advanced level on proficiency tests required. Subsequent enrollment in ESL courses is determined by instructor recommendation or by testing. Five class hours; offered evenings only. Course offered Fall only. Prerequisite: ESL 125 with a grade of C or better; or placement at low-advanced level on proficiency test; or permission of Program Coordinator.

ESL 158 English for Speakers of Other Languages: Oral Communication 3 Credits
A course emphasizing the skills needed for effective communication in social and academic settings. Students will improve listening skills and oral fluency through discussion, role play, interviews, oral presentations, and aural activities using various media. Four class hours including class and small group instruction. Course offered Fall and Spring. Prerequisite: Placement at the low-advanced level on proficiency tests, or permission of program coordinator.

ESL 178 Grammar In Writing 2 Credits
This course is designed to promote the development of grammatical accuracy through reading, writing, discussions, and formal instruction. Students will paraphrase, summarize, and analyze academic material and focus on revising and editing their writing for correctness. They will also improve their fluency and their ability to identify grammatical errors through daily in-class journaling. Three class hours. Course offered Fall and Spring. Prerequisite(s): Grade of C or higher in ESL 130 or ESL 145, or placement at advanced level on proficiency test, or permission of program coordinator; ESL 201 taken concurrently or previously completed.

ESL 201 English for Speakers of Other Languages - Advanced II: Reading/ Writing - WR 4 Credits
This course emphasizes the continuing development of reading and writing through the process approach. It includes informal writing, paraphrasing, summarizing, as well as essay writing. Students will focus on revising their writing and editing for correctness. Five class hours. Course offered Fall and Spring. Prerequisite: ESL 130 or ESL 145 with a grade of C or better, or placement at Advanced Level on Proficiency Tests; or permission of program coordinator.

ESL 207 History of the Fire Service 3 Credits
This course examines the historical evolution of the American fire service. The fire service has its roots in ancient Roman and European societies and has been shaped in the United States by historical fire events, improvement in equipment and technology, and notable leaders and innovators. An understanding of how it developed provides insight into its current structure, operation, and culture. Three class hours. Course offered Spring only.

ESL 208 English for Speakers of Other Languages: Oral Communication 3 Credits
A course emphasizing the skills needed for effective communication in social and academic settings. Students will improve listening skills and oral fluency through discussion, role play, interviews, oral presentations, and aural activities using various media. Four class hours including class and small group instruction. Course offered Fall and Spring. Prerequisite: Placement at the low-advanced level on proficiency tests, or permission of program coordinator.

ESL 210 Introduction to the New York State Building Code 3 Credits
A course to acquaint the student with the New York State Uniform Fire Prevention and Building Construction Code and supporting reference standards. Students will be presented an overview of the code and will be able to confidently research design and modification issues pertaining to new construction, new use, remodeling, renovations, alterations, and repairs to buildings using the current New York State Building Construction Code. Three class hours. Course offered Fall only.

ESL 212 English for Speakers of Other Languages: ESL Through Computers 2 Credits
A course at the intermediate level that encourages the development of all skills with a focus on using computers and the emerging technologies, including word processing, e-mail, Internet research/news, CD-ROM's, scanners, and presentation programs. The course will culminate in individual multimedia presentations. Two laboratory hours. Course offered Fall and Spring. Corequisite: ESL 100 or higher, or permission of program coordinator.

ESL 246 English for Speakers of Other Languages - Advanced: Integrated Skills - WR 8 Credits
This course builds on the fluency gained in ESL 120. It is designed to promote the development of clarity and completeness in students’ oral and written expression by massive amounts of extensive reading. Students will carry out a written research project related to a theme of their own choosing. The project will bring together data collected through library research and interviews. Discussion and small group work will play an important role. Nine class hours. Course offered Fall and Spring. Prerequisite: ESL 100 and ESL 120 with a grade of C or better, or placement at a low-advanced level on proficiency test; or permission of program coordinator.

ESL 260 English for Speakers of Other Languages: Advanced Reading/ Writing 4 Credits
This course emphasizes the skills needed for effective communication in social and academic settings. Students will improve listening skills and oral fluency through discussion, role play, interviews, oral presentations, and aural activities using various media. Four class hours including class and small group instruction. Course offered Fall and Spring. Prerequisite: Placement at the low-advanced level on proficiency tests, or permission of program coordinator.

ESL 268 English for Speakers of Other Languages: Advanced: Integrated Skills - WR 8 Credits
This course builds on the fluency gained in ESL 120. It is designed to promote the development of clarity and completeness in students’ oral and written expression by massive amounts of extensive reading. Students will carry out a written research project related to a theme of their own choosing. The project will bring together data collected through library research and interviews. Discussion and small group work will play an important role. Nine class hours. Course offered Fall and Spring. Prerequisite: ESL 100 and ESL 120 with a grade of C or better, or placement at a low-advanced level on proficiency test; or permission of program coordinator.

ESL 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

ESL 298 Advanced Placement English 4 Credits
A course emphasizing the skills needed for effective communication in social and academic settings. Students will improve listening skills and oral fluency through discussion, role play, interviews, oral presentations, and aural activities using various media. Four class hours including class and small group instruction. Course offered Fall and Spring. Prerequisite: Placement at the low-advanced level on proficiency tests, or permission of program coordinator.

ESL 301 English for Speakers of Other Languages: Advanced: Integrated Skills - WR 8 Credits
This course builds on the fluency gained in ESL 120. It is designed to promote the development of clarity and completeness in students’ oral and written expression by massive amounts of extensive reading. Students will carry out a written research project related to a theme of their own choosing. The project will bring together data collected through library research and interviews. Discussion and small group work will play an important role. Nine class hours. Course offered Fall and Spring. Prerequisite: ESL 100 and ESL 120 with a grade of C or better, or placement at a low-advanced level on proficiency test; or permission of program coordinator.
FPT 111 Firefighter I 5 Credits
This course gives the firefighter the basic skills and education to work safely and effectively as a member of a fire fighting team. Topics include fire behavior, safety practices, use of self-contained breathing apparatus, personal protective equipment, use of fire-fighting appliances, hazardous materials first response at the operations level, and working as part of a fire-fighting team. Five class hours. Course offered Fall and Spring.

FPT 113 Firefighter II 2 Credits
This 30 hours of advanced fire fighting is specifically designed to provide structural firefighters with the higher level of skills and knowledge required to handle fires in commercial, residential and institutional properties. Both hands-on use of fire training simulators and classroom presentations will be provided to the students. The classroom presentation will familiarize students with building construction, fire service hydraulics, chemistry of fire, foam systems, fire detection, and tactical considerations in suppression. The hands-on application will consist of conducting advanced rescue techniques, room and content fire suppression in commercial and residential environments, application of fire fighting foams, and sprinkler systems application. Students will also be presented with flashover simulations and re-ignition of fires. Two class hours. Course offered Fall and Spring. Prerequisite: FPT 111

FPT 120 International and Domestic Terrorism 3 Credits
A course designed to acquaint the student with the major issues in the growing threat of global terrorism. The student will be presented an overview of the history and development of terrorism, types of terrorism, terrorist groups, psychology of terrorism, structure and dynamics of terrorist groups, terrorists techniques, financing of terrorism, the media and terrorism, legal issues, and terrorism of the future. Three class hours. Course offered Fall and Spring.

FPT 130 Basic ARFF Class 2.5 Credits
This Basic Aircraft Rescue and Fire Fighting (ARFF) class is specifically designed to provide new airport firefighters with the basic skills and knowledge required to handle aircraft crashes and conduct fire suppression operations as they relate to rescue and fire extinguishment. Both hands-on use of the aircraft fire training simulators and classroom presentations will be provided to the students. The classroom presentation will provide familiarization of chemistry of fire, fire extinguishing agents, the Incident Management System (IMS), aircraft familiarization, aircraft types and familiarization, hazardous materials and cargo handling, and pre-incident planning/post incident operations. The skills application session will consist of conducting advanced rescue techniques, fire suppression operations in an aviation environment, application of firefighting foams on flammable liquids, and specialized apparatus and equipment operations. Forty class hours. Course offered Fall and Spring.

FPT 135 Aircraft Fuel Spill Fire Fighting .5 Credits
This course provides firefighters with the knowledge and skills to extinguish aircraft fuel spill fires, utilizing both classroom and live-fire extinguishment simulation. This course exceeds FAR 139 annual requirements for live fire training. Must have firefighter certification. Eight class hours. Course offered Fall and Spring.

FPT 136 Specialized Aircraft Fire Fighting .5 Credits
This course provides firefighters with the knowledge and skills to extinguish specialized aircraft fires, including fires in the cockpit, cabin, lavatory, engine, and brakes. This course utilizes both classroom and live-fire extinguishment simulation. This course exceeds FAR 139 annual requirements for live fire training. Must have firefighter certification. Eight class hours. Course offered Fall and Spring.

FPT 137 Specialized Aircraft and Fuel Spill Firefighting .5 Credits
Utilizing a mixture of classroom instruction and live fire training scenarios, this course provides ARFF firefighters with the knowledge and skills required for annual FAA Part 139 training. Both Spill and specialized aircraft system fires are extinguished utilizing vehicle turrets and hand lines. Eight instruction hours. Course offered Fall and Spring.

FPT 138 Basic ARFF Training Update and Refresher I 2 Credits
This course provides the principles of fire ground control through utilization of personnel, equipment, and extinguishing agents. Fire suppression and control of small, large, and special incidents is covered. Three class hours. Course offered Fall only. Prerequisite: FPT 113 or equivalent

FPT 139 Basic ARFF Training Update and Refresher II 2 Credits
This course is part of a four-course sequence which provides a systematic plan of study to assist firefighters to maintain their proficiency in core competencies and knowledge. Completion of the four-course sequence meets requirements for annual firefighter in-service training mandated by 19NYCRR Part 426.7. Two class hours. Course offered Fall and Spring. Prerequisite: FPT 111 or equivalent

FPT 141 Firefighter Core Competencies Update and Refresher I 2 Credits
This course is part of a four-course sequence which provides a systematic course of study to assist firefighters to maintain their proficiency in core competencies and knowledge. It also provides a means to integrate technological advances in the various disciplines involved in firefighting with the student’s existing knowledge and skills. Completion of the four-course sequence meets requirements for annual firefighter in-service training mandated by 19 NYCCR Part 426.7. Two class hours. Course offered Spring only. Prerequisite: FPT 113 or equivalent

FPT 142 Firefighter Core Competencies Update and Refresher II 2 Credits
This course is one of four courses which, taken together, provides a systematic plan of study to assist firefighters to maintain their proficiency in core competencies and knowledge. Successful completion of the four courses meets the requirements for annual firefighter in-service training mandated by 19NYCRR Part 426.7. Two class hours. Course offered Summer only. Prerequisite: FPT 113 or equivalent

FPT 143 Firefighter Core Competencies Update and Refresher III 2 Credits
This course is one of four courses which, taken together, provides a systematic plan of study to assist firefighters to maintain their proficiency in core competencies and knowledge. Successful completion of the four courses meets the requirements for annual firefighter in-service training mandated by 19NYCRR Part 426.7. Two class hours. Course offered Fall only. Prerequisite: FPT 111 or equivalent

FPT 144 Firefighter Core Competencies Update and Refresher IV 2 Credits
This course is part of a four-course sequence which provides a systematic plan of study to assist firefighters to maintain their proficiency in core competencies and knowledge. Completion of the four-course sequence meets requirements for annual firefighter in-service training mandated by 19NYCRR Part 426.7. Two class hours. Course offered Fall and Spring. Prerequisite: FPT 111 or equivalent

FPT 204 Fire Service Strategy and Tactics 3 Credits
This course provides the principles of fire ground control through utilization of personnel, equipment, and extinguishing agents. Fire suppression and control of small, large, and special incidents is covered. Three class hours. Course offered Spring only. Prerequisite: FPT 101.

FPT 211 Fire Investigation: Cause and Origin 3 Credits
A broad study of fire investigation is presented. The means to identify the origin and cause of a fire, properly conduct a fire scene investigation, and understand arson laws are emphasized. Topics include fire behavior, determining point of origin, ignition sources, fire scene investigation, and legal aspects of the discipline. Three class hours. Course offered Fall only. Prerequisite: PST 146 or permission of instructor.

FPT 212 Fire Service Hydraulics 3 Credits
This course is a theoretical study to understand the principles of the use of water in fire protection and to apply hydraulic principles to analyze and solve water supply problems. The student can expect to apply the application of math and physics to the movement of water in fire suppression activities; analyze the community fire flow demand criteria; and demonstrate understanding of hydraulics, water characteristics, fluid pressure, hydrostatics, hydrokinetics, nozzle reaction, nozzle pressure, water distribution systems, sprinkler and standpipe systems, determination of required fire flow, fire service pump design, friction loss calculations, pump discharge pressures, parallel lines, Wyeed lines, aerial stream calculations, fire streams, and the four hydraulic laws of friction loss. Three class hours. Course offered Spring only. Prerequisite(s): MTH 150 or higher, FPT 101, FPT 102, FPT 103, FPT 105.
FPT 213  Automatic Sprinkler and Standpipe Systems  3 Credits
Basic principles of the design, operation and maintenance of the various types of fire protection systems. Includes automatic sprinkler systems, standpipes, fire and smoke detection systems, and explosion suppression systems. Three class hours. Course offered Spring only.

FPT 215  Hazardous Materials Technician  3 Credits
This course prepares emergency response personnel to effectively and safely respond to hazardous materials incidents. Focuses include chemistry and toxicology of hazardous materials; the dangerous properties of chemicals; the use of detection instruments, confinement and containment procedures, including hands-on application; incident management and safety procedures; decontamination; and the selection and use of chemical protective clothing with hands-on practice. This course meets the training requirements of OSHA 1910.120 for the Hazardous Materials Technician. Three class hours. Course offered Fall only.

FPT 216  Fire Service Instructor I  3 Credits
This course will prepare students to meet the requirements of a Fire Service Instructor, in accordance with NFPA 1041, “The Standard for Fire Service Instructor Professional Qualifications” 2012 Edition. Topics covered include: characteristics of an effective fire instructor, oral communications, adapting lesson plans, writing performance objectives, use of audio and other teaching aids, common classroom settings and arrangements, various testing instruments to evaluate teaching and learning efficiency, and meeting record keeping requirements. Students who successfully meet all the requirements of this course will be eligible to test national certification in Fire Service Instructor I. Three class hours. Course offered Fall only. Prerequisite(s): ENG 101, FPT 101, FPT 102, FPT 103, FPT 105 or permission of instructor.

FPT 220  Fire Officer I  1.5 Credits
This course is designed to assist the new and prospective fire officer in developing the necessary skills to effectively lead and manage a fire department in today’s rapidly changing environment. Topics covered include leadership and management, responsibilities of the company officer, political and legal issues facing the fire service, incident management, fire service organization, health and safety issues, emergency responses, and strategy and tactics. Twenty-seven class hours. Course offered Fall and Spring.

FPT 230  Advanced Aircraft Rescue Firefighting  2.5 Credits
This class is designed to enhance the skills of the basic ARFF Firefighter. This training will place the firefighter above the minimum requirements and provide multi-faceted skills required to meet aviation fire protection demands. An extensive use of the aircraft fire training simulators and classroom presentations will be provided.

The student will be introduced to rescue systems and equipment, tools and apparatus, airport facilities, chemistry of fire, foam systems, Incident Management System (IMS), and strategies and tactical considerations in fire suppression operations. The hands-on sessions will consist of conducting advanced rescue techniques and extraction of trapped victims, firefighting foams and mass applications, motor vehicle fires, structural fires suppression operations, water rescue, and advanced aircraft fire suppression. Forty class hours. Course offered Fall and Spring. Prerequisite: FPT 130 or equivalent combination of training and experience.

FRE 101  Elementary French I  3 Credits
Designed for students with no previous experience in the language with focus on communicative skills of listening comprehension, speaking, reading, and writing. Includes high frequency vocabulary, basic constructions, common phrases, and cultural aspects. Also stresses student participation in skills development. FRE 111 is strongly recommended for oral fluency, especially for students transferring to four-year institutions. Three class hours. (SUNY-FL) Course offered Fall and Spring.

FRE 102  Elementary French II  3 Credits
Continuation of FRE 101 with emphasis on basic language skills for communication and on cultural aspects to promote understanding and appreciation of French culture. FRE 112 is strongly recommended as a companion course to develop oral fluency, especially for students transferring to four-year institutions. Three class hours. (SUNY-FL) Course offered Fall and Spring. Prerequisite: FRE 101 or one year of high school French or equivalent.

FRE 103  Intermediate French I  3 Credits
Communication skills in French for students with limited experience in the language. Cultural topics are included in the development of practical language skills of listening comprehension, speaking, reading and writing. A companion course, FRE 113 is strongly recommended for improving oral fluency, especially for students transferring to four-year institutions. Three class hours. (SUNY-FL) Course offered Fall and Spring. Prerequisite: FRE 102 or two years high school French or equivalent.

FRE 104  Intermediate French II  3 Credits
Continuation of FRE 103 with an emphasis on the development of linguistic skills and cultural understanding for students with some competency in the language. The companion course FRE 114 is strongly recommended for improving oral fluency, especially for students transferring to four-year institutions. Three class hours. (SUNY-FL) Course offered Fall and Spring. Prerequisite: FRE 103 or three years of high school French or equivalent.

FRE 111  Elementary French Conversation I  2 Credits
Intensive participation in the spoken language to develop and improve oral fluency in conversation. Strongly recommended as a companion course to FRE 101 especially for students transferring to four-year institutions. Two class hours. Course offered Fall and Spring. Corequisite: FRE 101, or some previous study of French.

FRE 112  Elementary French Conversation II  2 Credits
Intensive participation in the spoken language to develop and improve oral fluency in conversation, especially for students transferring to four-year institutions. Two class hours. Course offered Fall only. Prerequisite: FRE 102 taken concurrently, or one year high school language, or FRE 101.

FRE 113  Intermediate French Conversation I  2 Credits
Intensive participation in the spoken language to develop and improve oral fluency in conversation, especially for students transferring to four-year institutions. Two class hours. Course offered Fall and Spring. Prerequisite: FRE 103 taken concurrently, or two years high school language, or FRE 102.

FRE 114  Intermediate French Conversation II  2 Credits
Intensive participation in the spoken language to develop and improve oral fluency in conversation, especially for students transferring to four-year institutions. Two class hours. Course offered Fall and Spring. Prerequisite: FRE 104 taken concurrently, or three years high school language, or FRE 103.

FRE 205  Contemporary French Conversation I  3 Credits
Intensive participation in the spoken language for students with sufficient experience in the language to discuss current topics. Three class hours. Course offered Fall and Spring. Prerequisite: FRE 104 or four years of high school French or equivalent.
FSA - Food Service Administration

FSA 103 Culinary Arts I: Fundamentals of Food Preparation 5 Credits
The course covers instructions in the foundations of culinary arts, including food theory, demonstrations and hands-on cooking. Students will engage in various food preparation techniques and will sample their culinary creations. Eight class/laboratory hours per week for one semester. Course offered Fall and Spring.

FSA 106 Food Safety and Sanitation 1 Credit
Basic sanitation principles, ways to apply the principles in practical situations, and methods for training and motivating food service personnel to follow good sanitation practices. Certification is awarded by the National Education Foundation of the National Restaurant Association upon successful completion of the national examination. One class hour. Course offered Fall and Spring.

FSA 107 Menu Planning 3 Credits
A hands-on approach to planning, creating, and maintaining effective menus. Discussions include menu items and placement, food costing and creative menu designs for visual appeal. Menu planning and design software may be utilized. Three class hours. Course offered Fall and Spring.

FSA 108 Principles of Healthy Cooking 3 Credits
Through this combination lecture and hands-on laboratory course, students will become familiar with basic nutrition principles upon which healthy menus can be built. Students will learn techniques and ingredient selection for preparing healthy classical and modern cuisine, as well as how to analyze and modify the nutrient content of recipes. One class hours, four laboratory hours. Course offered Fall only.

FSA 110 Principles of Baking - Bread Products and Cookie Doughs 3 Credits
This course covers instruction in the foundations of baking including theory, demonstrations and hands-on cooking. Students will engage in various bread and cookie preparation techniques including quick breads, yeast breads, enriched and laminated doughs, as well as a variety of cookie mixing methods. They will sample and critique their culinary work. One class hour, four laboratory hours. Course offered Fall only.

FSA 111 Principles of Baking - Pastries and Confections Products 3 Credits
This course covers instruction in the foundations of baking and confectionery, including theory, demonstrations and hands-on cooking. Students will explore various pastry preparation and cooking techniques, as well as a variety of confections, pies, tarts, syrups, icings, sauces, custards, creams, and chocolates. They will sample and critique their culinary work. One class hour, four laboratory hours. Course offered Spring only.

FSA 117 Basic Consumer Nutrition 3 Credits
A lecture course that will present information on nutrients and their use by the body. Topics include digestion, usage of nutrients, consequences of nutrient deficiencies or excesses, energy production and analysis of individual diets. Current research is integrated into the course. Depending on program requirements, this course can meet both Food Service (FSA 117) or Natural Science (BIO 117) elective or course requirement. A student may earn credit for BIO 117 or FSA 117, but cannot earn credit for both courses because they are equivalent courses. This course fulfills the MCC requirement for a natural science elective. Three class hours. Course offered Fall and Spring.

FSA 203 Culinary Arts II: Advanced Food Preparation 5 Credits
A laboratory class in which the students supervise and run “The-Heart-of-the-House” commercial kitchen. Opportunities to practice “Back-of-the-House” management skills and menu development is employed here. The students will rotate job responsibilities between two kitchens to ensure familiarity of every facet of the operation and produce food for real diners. Ten laboratory hours. Course offered Fall and Spring.

FSA 205 Purchasing, Storage and Handling 3 Credits
A survey of the wide range of purchasing principles to include selection and procurement, specifications, and standard units of purchase. Discussion will include standard bid methods, government regulations, and evaluation of new technology as it impacts the purchase function. The processes of receiving, storing and issuing will also be addressed. Three class hours. Course offered Fall and Spring.

FSA 207 Equipment Facilities - Layout and Specification 3 Credits
This course evaluates different food service facilities regarding design and layout needs, reviewing layouts in operating food service facilities and suggesting innovative ways of utilizing space to its fullest potential. Three class hours. Course offered Fall and Spring.
FSA 208 Medical Nutrition Therapy 3 Credits
This course examines the role nutrition plays throughout the life cycle, as well as in the treatment of illness and degenerative disease. Dietary modifications for the management of heart disease, diabetes, cancer, and other diseases will be covered. Students will practice designing specialized menus to meet clients special dietary needs. Menu analysis using nutritional software is also included. A visit to a health care or community nutrition site provides students with the opportunity to see course content applied in the real world. Three class hours. Course offered Fall and Spring.
Prequisite: FSA/BIO 117 or permission of department.

FSA 299 Bar Management 3 Credits
An overview of the entire beverage industry, including alcoholic and nonalcoholic beverages, is provided. Discussions to include the study of beverage operations and their laws. Purchasing, storage, handling, pricing, as well as service techniques are covered. Three class hours. Course offered Spring only.

FSA 230 International Cuisine: Advanced Food Prep 3 Credits
A hands-on laboratory experience to provide students the opportunity to operate a successful food service operation based on the preparation and service of dishes that represent a variety of the world's cultures. Students will work in teams to research specific regions, develop appropriate production methods, and market and produce an authentic prix fixe menu to serve to the college community and the public. One class hour, four lab hours. Course offered Fall only.
FSA 103 with a grade of C or better and FSA 106 with a grade of C or better, or permission of department.

FSA 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

GEG - Geography

GEG 100 Physical Geography I Laboratory 1 Credit
Physical Geography I Lab explores the hands-on, practical applications of basic knowledge gained in the companion course, GEG 101 Physical Geography I. Exercises involve use of maps, atlases, and scientific equipment to observe, measure, and analyze the spatial significance of natural phenomena on and near Earth's surface. Three laboratory hours. (SUNY-NS) Course offered Fall and Spring.
Prequisite: GEG 101 Physical Geography.

GEG 101 Physical Geography I 3 Credits
Physical Geography is the science concerned with the spatial aspects and interactions of the physical elements and processes that make up the environment. GEG 101 is an introductory course presented through two of Earth's major spheres: the atmosphere and hydrosphere. Topics include Earth/Sun relations, Earth's energy budget, atmospheric temperature, moisture and precipitation, winds, weather, climate, and Earth's water.
NOTE: Students who successfully complete GEG 101 may, with the addition of GEG 100 Physical Geography I Laboratory, complete the requirement for SUNY Natural Science General Education. GEG 105 may be taken concurrently or in a later semester, but the student will not have satisfied the SUNY requirement until both GEG 101 and GEG 105 are successfully completed. This course fulfills the MCC requirement for a natural science elective. Three class hours. (SUNY-NS) Course offered Fall and Spring.

GEG 102 Human Geography 3 Credits
Human geography is the spatial analysis of human populations, their cultures, their activities and behaviors, and their relationship with, and impact on, the physical landscapes they occupy. An introductory survey course, GEG 102 is presented through three major themes: Cultural geography, population geography, and political geography. Topics include cultural evolution, popular and folk culture, cemeteries, languages, religions, demographics, overpopulation, migration, nationalism, and international political systems. This course fulfills the MCC requirement for a social science elective. Three class hours. This is a social science/other world civilizations course. (SUNY-SS/OWC) Course offered Fall and Spring.

GEG 103 Extreme Weather Lab - GR 1 Credit
Extreme Weather Lab explores the hands-on, practical applications of basic knowledge gained in the companion course, GEG 104 Weather and Climate. Exercises involve use of maps, atlases, weather maps and charts, radar and satellite data, observational weather data and measure, and using the above mentioned for creating an operational weather forecast. This course fulfills the MCC requirement for a natural science elective. Three lab hours. (SUNY-NS) This course only meets SUNY General Education Natural Science requirements when both GEG 103 and GEG 104 are successfully completed (SUNY-NS). Course offered Fall and Spring.
Prequisite or corequisite: GEG 104.

GEG 104 Extreme Weather (formerly Weather and Climate) 3 Credits
Weather is the scientific study of atmospheric processes and patterns, and their impact on human activities. This introductory meteorology course examines the collection and analysis of meteorological data at local, regional, and global scales. Topics include heat, moisture, and wind dynamics of the atmosphere; application of satellite and radar data; development and impact of thunderstorms, tornadoes and hurricanes; weather analysis and forecasting. Three class hours. This course fulfills the MCC requirement for a natural science elective.
NOTE: Students who successfully complete GEG 104 may, with the addition of GEG 103 Extreme Weather Laboratory, complete the requirement for SUNY Natural Science General Education. GEG 103 may be taken concurrently or in a later semester, but the student will not have satisfied the SUNY requirement until both GEG 103 and GEG 104 are successfully completed. (SUNY-NS) Course offered Fall and Spring.

GEG 110 Physical Geography II Lab 1 Credit
Physical Geography II Lab explores the hands-on, practical applications of basic knowledge gained in the companion course, Physical Geography II (GEG-111). Exercises involve use of maps, atlases, GPS units, and other geographic tools to observe, measure, and analyze the spatial significance of Earth's plants, animals, and landforms. This course fulfills the MCC requirement for a natural science elective. Three lab hours. (SUNY-NS)
NOTE: This course only meets SUNY General Education Natural Science requirements when both GEG 110 and GEG 111 are successfully completed. (SUNY-NS) Course offered Spring only.
Prequisite of Physical Geography II (GEG-111). Students that take GEG 110 are required to be taking or have taken GEG 111.

GEG 111 Physical Geography II 3 Credits
Physical Geography II is the study of spatial patterns and natural processes on Earth. As an introductory course, GEG 111 explores where and why plants, animals, and landforms occur where they do. Students will develop a better understanding of the natural environment and our role within it. Key topics include maps and map making, plants and animals (biogeography), as well as landforms (geomorphology) caused by volcanoes, earthquakes, glaciers, and rivers. This course fulfills the MCC requirement for a humanities elective. Three class hours. (SUNY-NS) Course offered Spring only.
GEG 130  Digital Earth  3 Credits
Introductory geospatial skills will be covered, including geography, as well as hands on use of Geographical Information Systems (GIS), GPS, and remote sensing. Topics such as sustainability, renewable energy, and the economy will be integrated into the course through the use of GIS. One project will provide students the opportunity to use geospatial technology and real data to create original maps that begin to provide a solution to a real world problem. Prior computer knowledge such as creating, saving, deleting, and locating files on a PC, as well as preparing and printing Microsoft Word documents, using Microsoft Excel spreadsheets, creating Microsoft PowerPoint slides, using e-mail and the Internet will be required to be successful in this course. A sustainability elective (GR). This is a lab course. This course fulfills the MCC requirement for a natural science elective. Two class hours, two laboratory hours. (SUNY-SS) Course offered Fall and Spring.

GEG 133  Introduction to Remote Sensing  3 Credits
Introduction to the fundamentals of Geospatial Technology, with a focus on remote sensing but also including Geographic Information Systems (GIS), global positioning system (GPS), cartography, and spatial analysis. Students will be guided through a series of lectures and hands on computer based exercises. An end of a semester project will allow students to work on a project of their own design. Course material used are based upon the United States Department of Labor’s Geospatial Technology Competency Model (GCTM) for entry level geospatial occupations including Geospatial or GIS Technicians or Technologists. Prior computer knowledge or GIS experience will be required to be successful in this course. This course fulfills the MCC requirement for a Natural Science elective and a sustainability elective (GR). Two class hours, two laboratory hours. Course offered Fall and Spring.

GEG 135  Business GIS  3 Credits
Business Geography integrates geographic analysis, human relationships, reasoning, and technology to improve organizational management and operational decision making. This course introduces the student to the geospatial technology component of business geography. Students will learn about the role of geospatial technology in analyzing human relationships, with an emphasis on social institutions, consumerism, structural inequality, and how these connect to business decisions. Topics such as competitive analysis and customer profiling will be covered by going through case-based and real world examples. Prior computer knowledge such as creating, saving, deleting, and locating files on a PC, as well as preparing and printing Microsoft Word documents, using Microsoft Excel spreadsheets, creating Microsoft PowerPoint slides, using e-mail and the Internet will be required to be successful in this course. This course fulfills the MCC requirement for a social science elective. Three class hours. (SUNY-SS) Course offered Fall and Spring.

GEG 201  Geography of United States and Canada  3 Credits
Physical and human geography of the United States and Canada with emphasis on the demographic, cultural, and economic aspects of individual regions. Three class hours. This course fulfills the MCC requirement for a social science elective. This is not a natural science. (SUNY-SS) Course offered Fall only.

GEG 203  Extreme Climate Laboratory formerly GEG 252  1 Credit
Central to understanding the predictions for future global warming is identifying the key components that operate within the climate system. This laboratory is designed to provide students with the tools necessary to understand the science behind global warming. Students will take the role of climate investigators and learn how changes in the climate system are analyzed through the use of simple models. Ultimately students will gain an understanding of how factors that affect climate are used to construct a geographical pattern of future warming on a global scale. This course fulfills the MCC requirement for a natural science elective. NOTE: This course only meets SUNY General Education Natural Science requirements when both GEG 204 and GEG 203 are successfully completed. Three lab hours. (SUNY-NS) Course offered Summer only. Prerequisite(s): MTH 098 Elementary Algebra

GEG 204  formerly GEG 253  Extreme Climate  3 Credits
This course offers an interdisciplinary approach to understanding future changes in the Earth’s climate. Students will learn how the Earth’s climate system operates and gain an informed perspective of future global climate change. Topics include measuring changes in greenhouse gases, tools used in modeling and interpreting past climate, ice ages, recent global warming, future climate projections, strategies to potentially slow and stabilize climate change, and the outlook of our future energy use. This course fulfills the MCC requirement for a natural science elective. NOTE: Students who successfully complete GEG 204 may with the addition of GEG 203, complete the requirement for SUNY Natural Science General Education. Three class hours. Course offered Fall and Spring. Prerequisite(s): MTH 098 Elementary Algebra

GEG 211  Economic Geography  3 Credits
Economic Geography examines the changing locations and spatial patterns of economic activity. Topics include spatial economic principles of trade, transportation, communications, and corporate organization, regional economic development, and the rise of the geospatial economy. As a survey course, GEG 211 is based on the theme of location theory and presented through the use of web-based, interactive geographic information technologies, such as digital maps, charts, and globes combined with digital photographs, video clips, audio, graphics, and animation. Three class hours. This course fulfills the MCC requirement for a social science elective. (SUNY-SS) Course offered Fall and Spring.

GEG 215  Geography of Tourism Destinations  3 Credits
Geography of tourism destinations is the analysis of human leisure behavior and its socioeconomic impact, and includes the exploration of major tourism attractions and destinations on Earth. This survey course is presented through two major themes: thematic tourism geography and regional tourism geography. Topics include demand and resources for tourism, climate, transportation, spring-break, cruises, all-inclusive resorts, “sin” and “lifestyle” tourism, Rochester’s tourism development, and an overview of major travel destinations across the globe. Three class hours. This course fulfills the MCC requirement for a social science elective. (SUNY-OWC) Course offered Fall only.

GEG 218  Political Geography  3 Credits
Analysis of the geographies and politics of the state, everyday life, political regions, demographics, the emergence of the modern state system, contemporary international relations and ecological issues. Three class hours. This course fulfills the MCC requirement for a social science elective and does not fulfill the natural science requirement. Course offered Fall and Spring.

GEG 220  Geography of Genocide  3 Credits
Geography of Genocide is the spatial analysis of modern acts of genocide and other crimes against humanity. As a survey course, GEG 220 is presented through four major themes: cultural, economic, physical, and political geography. Major topics include the Ottoman mass murder of Armenians, the Holodomor, the Holocaust, Cambodia under the Khmer Rouge, “ethnic cleansing” in the former Yugoslavia, and the genocide in Rwanda. Three class hours. This course fulfills the MCC requirement for a social science elective. (SUNY-OWC) Course offered Fall and Spring.

GEG 290  Independent Study  3 Credits
See the Department Chairperson. Course offered Fall and Spring.
GEO - Geology

GEO 101 Physical Geology-GR 4 Credits
This course focuses on the Earth's composition, features, and processes, including volcanoes, earthquakes, minerals, rocks, glaciers, caves, landslides, rivers, mountain building, and plate tectonics. Two field trips to study local geology are incorporated into lab each semester. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring.

GEO 102 Historical Geology 4 Credits
Historical Geology is the study of the history of Earth and life through time. It addresses the Earth's origin, evolution, changes in the distribution of lands and seas, growth and destruction of mountains, succession of animals and plants through time, and the development of continental drift. Three class hours, three laboratory hours, field trips. (SUNY-NS) Course offered Spring only. Prerequisite: GEO 101 or 131 or permission of instructor.

GEO 103 Great Mysteries of the Earth 3 Credits
This course investigates Earth mysteries to gain an understanding of the differences between science and pseudoscience. The student will learn and use critical thinking skills, logic, and the scientific method of inquiry to better understand allegedly unexplainable phenomena. This course will investigate topics related to the search for extraterrestrial intelligence, extinction events, early engineering structures, plate tectonics, climate concerns, legendary creatures and enigmatic landforms. Three class hours. Course offered Fall and Spring.

GEO 104 Astronomy 3 Credits
An introduction to general astronomy. Topics include: solar system, stellar evolution, galaxies, the universe and constellation identification. Three class hours. NOTE: Students who successfully complete GEO 105 may, with addition of GEO 115, complete the requirements of SUNY Natural Science General Education. GEO 115 may be taken concurrently or in a later semester, but the student will not have satisfied the SUNY requirement until both GEO 115 and GEO 105 are successfully completed. (SUNY-NS) Course offered Fall and Spring.

GEO 105 Historical Geology 3 Credits
This course explores the hands-on, practical applications of basic knowledge gained in the companion course, GEO 105. Exercises involve use of telescopes, observation of stars and constellations, stellar spectra, Hubble redshift, astrophotography, and computer based exercises. Three laboratory hours. NOTE: This course only meets SUNY General Education Natural Science requirements when both GEO 105 and GEO 115 are successfully completed. (SUNY-NS) Course offered Fall and Spring. Co-requisite: GEO 105 Prerequisite: GEO 101 or 131 or permission of instructor.

GEO 106 Introduction to Oceanography 3 Credits
An introductory course which will survey ocean sciences. Geological, chemical, physical, and biological processes and interrelationships will be examined. Three class hours. Course offered Fall and Spring.

GEO 107 Environmental Geology 3 Credits
This lecture and laboratory course will center around an in-depth discussion about the environment as related to resources, wastes, pollution, and geologic hazards. The consequences of use and misuse of our geologic environment will be stressed and explored in three depth in weekly laboratories. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring. Prerequisite: GEO 101 or GEO 131.

GEO 108 Dangerous Earth (formerly GEO 137) 3 Credits
An introduction to the destructive power of natural hazards such as earthquakes, volcanoes, hurricanes, tornadoes and related phenomena. The origin and occurrence of such hazards will be examined. Recent disasters as well as catastrophic events in the Earth's past will be utilized as case studies. Methods of prediction and strategies for minimizing loss of life and property will be emphasized. Three class hours. Course offered Fall and Spring.

GEO 109 Geology of the National Parks 4 Credits
This lecture and laboratory course explores the geological processes and earth history responsible for the development of the iconic landscapes found within the National Parks System, including Arches, Bryce Canyon, Grand Canyon, Great Smokies, Mammoth Cave, Shenandoah, Yellowstone, Yosemite, Zion National Parks, and others. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring. Prerequisite: GEO 101 or GEO 131 or permission of instructor.

GEO 110 Geomorphology 4 Credits
A study of the genesis of land forms, resulting from the action of running water, glaciers, waves, wind, ground water, and other gradational agents. The approach is analytical in terms of structure, process, and stage. Three class hours, three laboratory hours. Course offered Fall and Spring. Prerequisite: GEO 101 or GEO 131.

GEO 111 Our Changing Earth 3 Credits
A course of study designed for non-science majors to acquaint the student with the wonders and complex workings of our planet. This course will guide the student to an understanding of the infinitely varied landscapes of Earth and the powerful geologic forces of modification at work, leading to a true appreciation of our changing Earth. Three class hours. Course offered Fall only.

GEO 112 Ancient Life 3 Credits
Covers the parade of life on earth from the oldest remains, nearly 3.5 billion years ago, to the emergence of the human species during the Ice Age. The origin of life will be briefly discussed. Emphasis on the evolution of vertebrates, especially dinosaurs. Three class hours. Course offered Fall and Spring.

GEO 113 Our Changing Earth 3 Credits
A course of study designed for non-science majors to acquaint the student with the wonders and complex workings of our planet. This course will guide the student to an understanding of the infinitely varied landscapes of Earth and the powerful geologic forces of modification at work, leading to a true appreciation of our changing Earth. Three class hours. Course offered Fall only.

GEO 114 Historical Geology 3 Credits
This course explores the hands-on, practical applications of basic knowledge gained in the companion course, GEO 105. Exercises involve use of telescopes, observation of stars and constellations, stellar spectra, Hubble redshift, astrophotography, and computer based exercises. Three laboratory hours. NOTE: This course only meets SUNY General Education Natural Science requirements when both GEO 105 and GEO 115 are successfully completed. (SUNY-NS) Course offered Fall and Spring. Co-requisite: GEO 105 Prerequisite: GEO 101 or 131 or permission of instructor.

GEO 115 Introductory Astronomy Laboratory 1 Credit
This course is designed to address specific topics of interest in the geosciences. Examples of potential course offerings could include volcanology, mineralogy, climate change, or the study of a particular geographic region. Topics may change from semester to semester based on faculty and student interest. Primarily lecture format, but field experiences may be included. Variable class hours. Course offered Fall and Spring.

GEO 116 Special Topics in Geosciences 1-3 Credits
This course is designed to address specific topics of interest in the geosciences. Examples of potential course offerings could include volcanology, mineralogy, climate change, or the study of a particular geographic region. Topics may change from semester to semester based on faculty and student interest. Primarily lecture format, but field experiences may be included. Variable class hours. Course offered Fall and Spring.

GEO 117 Geosystem Factors and Processes 4 Credits
A study of the forces and processes that shape our planet. Topics may change from semester to semester based on faculty and student interest. Primarily lecture format, but field experiences may be included. Variable class hours. Course offered Fall and Spring. Prerequisite: GEO 101 or GEO 131.

GEO 118 Environmental Geology 4 Credits
This lecture and laboratory course will center around an in-depth discussion about the environment as related to resources, wastes, pollution, and geologic hazards. The consequences of use and misuse of our geologic environment will be stressed and explored in more depth in weekly laboratories. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring. Prerequisite: GEO 101 or GEO 131.

GEO 119 Environmental Geology 4 Credits
This lecture and laboratory course will center around an in-depth discussion about the environment as related to resources, wastes, pollution, and geologic hazards. The consequences of use and misuse of our geologic environment will be stressed and explored in more depth in weekly laboratories. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring.

GEO 120 Geology of the National Parks 4 Credits
This lecture and laboratory course explores the geological processes and earth history responsible for the development of the iconic landscapes found within the National Parks System, including Arches, Bryce Canyon, Grand Canyon, Great Smokies, Mammoth Cave, Shenandoah, Yellowstone, Yosemite, Zion National Parks, and others. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring. Prerequisite: GEO 101 or GEO 131.

GEO 121 Geology of the National Parks 4 Credits
This lecture and laboratory course explores the geological processes and earth history responsible for the development of the iconic landscapes found within the National Parks System, including Arches, Bryce Canyon, Grand Canyon, Great Smokies, Mammoth Cave, Shenandoah, Yellowstone, Yosemite, Zion National Parks, and others. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring. Prerequisite: GEO 101 or GEO 131.

GEO 122 Geology of the New York State 4 Credits
The geological history of the state will be studied chronologically from the Precambrian Eon to the Pleistocene Epoch. The geology of Monroe County and the Genesee River region will be stressed. Three class hours, three lab hours. (SUNY-NS) Course offered Fall and Spring. Prerequisite(s): One semester of physical geography OR any geology course is recommended except GEO 103 or GEO 105.
GER 221 Germanic Culture on Location 3 Credits
This course is designed to provide the opportunity to see and experience the richness of a German-speaking country through the unique experience of travel. The core part of this course will be a stay in the country, with visits to the main cities and cultural centers. Class meetings prior to the trip will focus on topics that will help the student prepare for the experience, and meetings after the trip will provide a time for debriefing, reporting, evaluation and assimilation. The student is expected to complete ten tasks during his/her stay, make an oral presentation, and prepare a portfolio of the trip. This portfolio can be a personal journal, photo display, video recording, or a combination thereof. Three class hours; a total of 35 experiential hours. Offered Intersession, Spring and Summer Semesters.

GLF - Golf Management
GLF 136 Golf Shop Policies and Services 3 Credits
This course is designed to provide the student with an understanding of the maintenance operations of golf courses and with an understanding of the equipment needed to operate a golf course. Three class hours. Course offered Fall only.

GLF 126 Introduction to Golf Equipment 3 Credits
This course is designed to provide the student with an understanding of the characteristics and design of modern golf equipment. The student will study different fitting techniques and perform basic club repair functions. Three class hours. Course offered Fall and Spring.

GLF 118 Golf Shop Operation 3 Credits
This course is designed to provide the student with the elements required for the development of a good golf swing, a detailed study in advanced short game and putting techniques, and with verbal and physical skills related to teaching the game of golf. Three class hours. Course offered Fall only.

GLF 115 Introduction to Golf Management 3 Credits
This course is designed to provide the student with an understanding of the golf industry. It also provides the student with an understanding of the etiquette, definitions and rules that govern the game of golf. Three class hours. Course offered Fall and Spring.

GLF 140 Introduction to Golf Science 3 Credits
This course will provide the basic information on the structure and function of the human body as it is applied in the golf swing. It will also provide the basic science used in the research and development of the implements and objects used in the game. That information combined will provide the student with the ability to qualitatively evaluate the swinging of the golf club. Basic Computer and Internet skills are required. Three class hours. Course offered Spring only.

GLF 122 Golf Fundamentals and Methods 3 Credits
This course is designed to provide the student with the elements required for the development of a good golf swing, a detailed study in advanced short game and putting techniques, and with verbal and physical skills related to teaching the game of golf. Three class hours. Course offered Fall only.

GLF 110 Elementary German Conversation I 2 Credits
Intensive participation in the spoken language to develop and improve oral fluency in conversation, especially for students transferring to four-year institutions. Two class hours. Co-requisite: GER 101, or some previous study of German. Course offered Fall and Spring.

GLF 117 The Rules of Golf 2 Credits
This course is designed to provide the student with a comprehensive understanding of the rules of golf. The course will include instruction in the history of the rules, governing bodies, definitions, etiquette, and interpretation of the rules of golf. The student will learn how to identify the rule that applies to each situation, and how to interpret and apply the rule. Two class hours. Course offered Fall only.

GLF 118 Golf Shop Operation 3 Credits
This course is designed to provide the student with an understanding of the operation of a golf shop. It will address the services that may be provided by the golf professional for the members/customers. The following topics will be covered: driving range operation, lesson programs, merchandising, and other revenue producing strategies. Three class hours. Course offered Fall and Spring.

GLF 129 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

GER 102 Elementary German II 3 Credits
Continuation of GER 101 with emphasis on basic language skills for communication and on cultural aspects to promote understanding and appreciation of German culture. Three class hours. (SUNY-FL) Course offered Fall and Spring.

GER 101 Elementary German I 3 Credits
Designed for students with no previous experience in the language. Focuses on communicative skills of listening comprehension, speaking, reading, and writing. Includes high frequency vocabulary, basic constructions, common phrases, and cultural aspects. Also stresses student participation in skills development. GER 111 is strongly recommended for oral fluency especially for students transferring to four-year institutions. Three class hours. (SUNY-FL) Course offered Fall and Spring.

GER 103 Intermediate German I 3 Credits
Fundamentals of German for students with limited experience in the language. Cultural topics are included in the study of grammar and structure. Three class hours. (SUNY-FL) Course offered Fall only.

GER - German/Foreign Language
GER 111 Elementary German Conversation I 2 Credits
Intensive participation in the spoken language to develop and improve oral fluency in conversation, especially for students transferring to four-year institutions. Two class hours. Co-requisite: GER 101, or some previous study of German. Course offered Fall and Spring.

GER 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

GEO 295 Field Studies in the Geosciences Variable Credit
This course is designed for students who wish to study a specific geologic or geographic topic or locality in a focused, hands-on, field setting. A significant portion of the course work is completed in the field at a local or distant location depending upon the title and focus of the course for a given semester. Students will make field observations, create sketches, record data, and construct a field notebook detailing all aspects of their field experience. The course title will have a sub-title attached to it for any given semester identifying the field setting for that semester. Two examples include “Field Studies in the Geosciences/Volcanic Landscapes of the Western US” or “Field Studies in the Geosciences/Geologic History of the Pacific Northwest”. Additional fees for travel, lodging, food, and other field expenses may apply. Credit hours are variable depending upon the field experience offered. (SUNY-NS) Course offered Spring only.

Prerequisites: One Geology or Geography class preferred; permission of the instructor(s) required.
HBR - Hebrew/Foreign Language

HBR 101 Elementary Modern Hebrew I  
3 Credits
Designed for students with little or no previous experience in the language. Focuses on communicative skills of listening comprehension and speaking, and in developing mastery of the Hebrew writing system for basic reading and writing of simple sentences and short paragraphs. Hebrew letters are taught so that students will be able to communicate both orally and in written form in the most essential everyday life situations using modern Hebrew as it is spoken in Israel today. Students will also learn Israeli customs, traditions and culture. Student participation, group discussion and the use of digital media are essential elements of the course. Three class hours. (SUNY-FL) Course offered Fall and Spring.

HBR 102 Elementary Modern Hebrew II  
3 Credits
Continuation of HBR 101 with emphasis on basic language skills for communication and on cultural aspects to promote understanding and appreciation of the Israeli and Jewish cultures. Three class hours. (SUNY-FL) Course offered Fall and Spring.

HBR 221 Israeli Culture on Location  
3 Credits
This course is designed to provide the opportunity to see and experience the history and culture of Israel through the unique experience of travel. The core part of this course will be a stay in the country, with visits to the main cities and cultural centers. Class meetings prior to, or during, the trip will focus on topics that will help the student to prepare for and enjoy the experience. Meetings after the trip will provide a time for debriefing, reporting, evaluation and assimilation. The student is expected to complete ten tasks during his/her stay, make an oral presentation, and prepare a portfolio of the trip. This portfolio can be a personal journal, photo display, video recording, or a combination thereof. Ten class hours, thirty-five experiential hours. Offered during Intersession, Spring and Summer Semesters.

HED - Health Education

HED 101 Cardiopulmonary Resuscitation and Care  
1 Credit
This course emphasizes how to recognize and care for breathing and cardiac emergencies for adults, children and infants, heart disease and injury prevention, two rescuer CPR, use of resuscitation mask and valve, and identifying and caring for life-threatening bleeding. The student will be eligible for American Red Cross Certification in Basic Life Support. American Red Cross Administrative Fee. Eight week course. Course offered Fall and Spring.

HED 108 Health, Family and Society  
2 Credits
The focus of the course is to understand the societal influences and apply the concepts of wellness and holistic health within our families. Specific issues will include multiple dimensions of health, prevention of lifestyle diseases, and exploring choices that promote family and individual health and wellness. Two class hours. Course offered Fall and Spring.

HED 110 Disease Prevention and Healthy Lifestyles  
2 Credits
This course is designed to identify factors that contribute to the most common lifestyle diseases (cardiovascular disease, cancer, stroke, diabetes, chronic lung diseases, osteoporosis, anxiety and depression), and common infectious diseases (influenza, STI and HIV). Health promotion and disease prevention measures will be discussed with focus on nutrition, physical activity, emotional wellness, stress management, personal choices and behavior. Two class hours. Course offered Fall and Spring.

HED 114 Health and Safety in the Workplace  
2 Credits
This course emphasizes the key areas of safety, accident prevention and mitigation. Safety topics explored include home, fire, motor vehicle, occupational, recreational, school, natural and man-made disasters. Emergency care procedures are presented and students will demonstrate competency in recognition and care for breathing emergencies for adults, children, infants, one and two rescuer CPR, use of resuscitation mask, bag, valve, Automated External Defibrillator (AED), identifying and caring for life-threatening bleeding, sudden illness, and injuries. The student will receive American Red Cross Certification in Basic Life Support and First Aid. Three class hours. Course offered Fall and Spring.

HED 115 Death and Dying  
3 Credits
A study of the dying process, death, ceremonies and rituals in many cultures. Deals with issues of loss experiences, the fear of death, understanding reactions to death, near-death experiences, euthanasia, suicide, and current practices and trends in the care and treatment of the terminally ill. Three class hours. Course offered Fall and Spring.

HED 116 Issues in Child Development and Health  
3 Credits
Explores health content areas, defined by the New York State Health Education Department, that affect the physical and emotional health of children. Issues that follow are addressed from an educator’s or caregiver’s perspective: communication skills, family life, keeping kids active, safety education, death, substance use and abuse, school violence, childhood stress, nutrition, mental health and environmental factors. This course will include the opportunity for certification in identifying and reporting suspected child abuse/maltreatment, and Safe Schools Against Violence in Education Legislation. Three class hours. Course offered Fall and Spring.

HED 118 Introduction to Safety and Emergency Care  
3 Credits
This course emphasizes the key areas of safety, accident prevention and mitigation. Safety topics explored include home, fire, motor vehicle, occupational, recreational, school, natural and man-made disasters. Emergency care procedures are presented and students will demonstrate competency in recognition and care for breathing emergencies for adults, children, infants, one and two rescuer CPR, use of resuscitation mask, bag, valve, Automated External Defibrillator (AED), identifying and caring for life-threatening bleeding, sudden illness, and injuries. The student will receive American Red Cross Certification in Basic Life Support and First Aid. Three class hours. Course offered Fall and Spring.
HED 207  Emotional Wellness  3 Credits
This course is an examination of emotional, spiritual, social and mental wellness. The course will emphasize primary and secondary prevention strategies as they relate to the dimension(s) of health previously mentioned. Topics include Self-Esteem, Self-Efficacy, Empowerment, Happiness, Anger and Anger Management, Relationships, Life Goals, and Self-Actualization. Three class hours. Course offered Fall and Spring.

HED 208  Chronic and Communicable Disease  3 Credits
This course will provide students with an opportunity to develop a basic understanding of the nature and cause of human diseases, disabilities and death, and the educational interventions to prevent or control them. An epidemiologic approach will be used to study selected diseases/conditions. Common infectious diseases (influenza, pneumonia, HIV, STD's, hepatitis, meningitis, salmonella, childhood diseases), and chronic or lifestyle diseases (heart disease, cancer, stroke, diabetes mellitus, chronic kidney disease, chronic obstructive pulmonary disease, asthma, arthritis, osteoporosis) will be explored. The current United States strategic plan for improving the nation's health will be reviewed and discussed in conjunction with the diseases/disorders presented. Three class hours. Course offered Fall and Spring. Prerequisite: HIM 108 or HIM 110 or HIM 130.

HED 209  Drugs and Behavior  3 Credits
This course is designed to inform the student about the issue of chemical dependencies. Basic pharmacology in addition to the biological, psychological and sociological reasons for drug-seeking behavior will be discussed. Topics pertaining to both legal and illegal drug use, abuse and dependency will be covered. This will be accomplished through the use of lectures, videos, class discussions and reaction papers. Three class hours. Course offered Fall and Spring.

HED 210  Complementary, Alternative and Integrative Approaches to Health and Wellness  3 Credits
This course provides an exploration and in depth study into the field of integrative health care and the most commonly used techniques and therapies within the domain of Complementary and Alternative Medicine (CAM) as categorized by the National Center for Complementary and Alternative Medicine (NCCAM). Learners will gain a sound knowledge base in the therapies/techniques and the ability to identify and use resources that provide accurate and reliable research-based information in order to make informed decisions regarding use of CAM therapies/techniques in addition to traditional western health care measures in their pursuit of health and wellness. Three class hours. Course offered Spring only.

HED 212  Women's Health and Wellness  3 Credits
This course will focus on health and wellness issues pertinent to women in their young adult years through middle to late adulthood. The conceptual framework based on elements of body, mind and spirit will be used to explore common health and wellness issues (i.e., exercise, nutrition, stress, emotions, relationships, acute and chronic disease). Consumer issues related to women and health will be included. Self-empowerment in relation to health promotion and disease prevention will be stressed. Three class hours. Course offered Fall and Spring.

HIM - Health Information Technology

HIM 100  Introduction to Health Information  3 Credits
Introduction to the health record profession, allied health professions, historical development of health care field and the present health care delivery system. Introduction to the health information department and its relationship to other hospital departments. Numbering and filing systems, record retention, duplication, and storage considerations are explored. Health care registries are explored. Health information science principles are applied in the laboratory setting. Offered first half of Fall semester only. Three class hours. Course offered Fall only. Prerequisite: HIM 108 or HIM 110 or HIM 130.

HIM 103  Health Care Documentation  3 Credits
Introduction to the development, form, content, and evaluation of the health record. Introduction to hospital admitting department. Introduction to the organization, responsibilities, and committees of the hospital medical staff. Health record principles are applied in the laboratory setting. Offered second half of fall semester only. Three class hours. Course offered Fall only. Prerequisite: HIM 100 with a grade of C or better.

HIM 104  Medical Terminology  3 Credits
A survey of the principles of medical terminology and word elements as a framework for a comprehensive medical vocabulary that can be applied in a professional setting. The course emphasizes methods used in health record documentation. Content includes detailed general and body system terminology, covering approximately 50+ terms per body system, as well as terminology used in pharmacotherapy, medical laboratory testing, and medical diagnosis. Computer programs, internet links, and comprehensive medical dictionaries will be used to enhance understanding of medical terminology. Three class hours. Course offered Fall and Spring.

HIM 105  Medical Transcription  3 Credits
Designed to introduce the student to the knowledge and skills required for medical transcription in a health care facility, utilizing digital dictation and MS Word. Organized and presented according to body systems. Transcription will consist of discharge summaries, operative reports, x-ray reports, histories and physicals, and other assorted medical reports. Use of references emphasized. Two class hours, two laboratory hours. Course offered Spring only. Prerequisite: HIM 104 with a minimum grade of C.

HIM 110  ICD-10 Diagnostic and Procedural Classifications  4 Credits
This course will include the historical development of reimbursement, and emphasize the ICD-10 classification system. Course work will focus on official coding guidelines and use of ICD-10. Additional classifications are briefly studied. Instruction of coding issues by body system will be introduced, and laboratory includes coding exercises and application of coding principles. Three class hours, two laboratory hours. Course offered Spring only. Prerequisites: BIO 134, HIM 103 and HIM 104, each with a minimum grade of C, or permission of the instructor.

HIM 111  CPT Procedural Coding System  2 Credits
This course will emphasize the American Medical Association’s Current Procedural Terminology (CPT) coding system. Course work will focus on introductory outpatient coding with emphasis on evaluation and management, and surgery. Coder exercises will reference documentation guidelines and application of coding and reporting guidelines for outpatient services. Two class hours. Course offered Spring only. Prerequisite: HIM 110 with a minimum grade of C, or permission of instructor.

HIM 115  Medical Office Pharmacology  1 Credit
Basic pharmacology terminology and concepts for the medical office professional. Topics include drug terminology, abbreviations, regulatory agencies, drug administration, dosage, effects, and use of drug references. One class hour. Course offered Spring only. Prerequisite/corequisite: HIM 104.

HIM 204  Health Records in Alternate Care  3 Credits
The course will review trends and changes in the health care delivery system, an introduction to the types of non-hospital health care facilities and respective record keeping requirements, with emphasis on long-term, psychiatric, ambulatory, home care/hospice, and rehabilitative care. Three class hours. Course offered Fall only. Prerequisite: HIM 111 with a minimum grade of C.
HIM 205 Professional Practice Experience I - WR 4 Credits
Applied practical experience under the guidance of professionals in health information-related settings. Included will be a forum for Professional Practice experiences and professional development content including current issues in the health care and health information field; employment opportunities; the role of the Professional Practice Supervisor; personal development and presentation; assertiveness training/techniques; responsibilities and privileges associated with professional membership; HIT-related professional agencies; and professional resources on the internet, including use of AHIMA Virtual Lab. Enrollment in HIM 205 is conditional upon satisfactory completion of the medical requirements and clearance from any existing health problem(s). Continued enrollment is conditional upon satisfactory completion of each Professional Practice rotation. One class hour, sixteen laboratory hours. This course, designated as “Writing Intensive,” which will be reflected on transcript. Course offered Fall only.
Prerequisite(s): HIM 201, HIM 202, each with a minimum grade of C.

HIM 206 Professional Practice Experience II 4 Credits
Continuation from HIM 205 with applied practical experience under the guidance of professionals in health information-related settings. Included will be a forum for Professional Practice experiences and professional development content including current issues in the health care and health information field, such as employment opportunities and search techniques; consulting for the health information practitioner; critique of department layouts, AHIMA certification exam application and preparation; continuing education requirements; and professional resources on the internet, including use of AHIMA Virtual Lab. Enrollment in HIM 206 is conditional upon satisfactory completion of medical requirements and clearance (by MCC Health Services). Continued enrollment is conditional upon satisfactory completion of each Professional Practice rotation. This course, is designated as “Writing Intensive,” which will be reflected on transcript. One class hour, sixteen laboratory hours. Course offered Spring only.
Prerequisite(s): HIM 205 and HIM 206, each with a minimum grade of C.

HIM 208 Quality Improvement, Legal and Compliance Issues for the HIM Practitioner 5 Credits
This course will encompass a survey of accrediting, licensing, approving and certifying agencies affecting health care facilities, including the various accreditation programs of the Joint Commission on Accreditation of Health Care Organizations. Total quality management includes quality assessment, utilization management, risk management and credentialing. Additionally, the course will present to the student an introduction to the legal system, release of information, consents, administration of the law, evidence, torts, selected legal doctrines, the medical record in legal proceedings, liability of health care providers, current health legislation, and bioethical issues. Five class hours. Course offered Fall only.
Prerequisite: HIM 103 with a minimum grade of C.

HIM 209 Management, Supervision & Personal Development for the HIM Practitioner 2 Credits
This course will encompass an introduction to managerial concepts and functions, to include supervisory techniques, planning, organizing, actuating and controlling, leadership, motivation, forms design, and tools of management specifically developed for health care settings. Content also includes emphasis on development of oral and written communication skills. Two class hours. Course offered Spring only.
Prerequisite(s): HIM 205 and HIM 208, each with a minimum grade of C.

HIM 211 Healthcare Reimbursement 3 Credits
Course will acquaint the student with the cost of health care in the United States. Financial concepts related to health information systems will be discussed. Content includes instruction in health statistics and the use of medical information systems. Examination of data quality techniques necessitated by current reimbursement methodologies will be included. Computer applications in these areas will be utilized as appropriate. Three class hours. Course offered Spring only.
Prerequisite: HIM 208 and MTH 150 (or higher), each with a minimum grade of C.

HIM 213 Health Information Systems 3 Credits
An introduction to health record applications, system design and security, and the health information manager’s roles and responsibilities. Three class hours. Course offered Spring only.
Prerequisite(s): HIM 205, HIM 208 each with a minimum grade of C.

HIM 220 Independent Study Variable Credit
See the Program Director. Course offered Fall and Spring.

HIS 102 Introduction to African-American Studies - WR 3 Credits
This is an interdisciplinary exploration of the experience and initiative of people of African descent throughout the world. Students will be introduced to the history, religion, sociology, politics, economics, creative production and psychology of African peoples, especially in the United States. In addition, the course introduces a variety of perspectives, theories, practical applications and methods of studying African peoples and their social evolution. Three class hours. Course offered Fall and Spring.

HIS 103 African-American History I: to 1865 - WR 3 Credits
This course explores the history of African-Americans since they left their West African ancestral homeland to the moment they were emancipated following the Civil War. It emphasizes the brutalizing impact of the slave trade on its victims, slave life, the establishment of white supremacy, the strategies slaves adopted to transcend their ordeal and the achievements and contributions they made in America. In addition, the course deals with the fight for the emancipation of slaves and the steps leading up to the end of chattel slavery in America. Three class hours. (SUNY-AH) Course offered Fall and Spring.

HIS 104 African-American History II: since 1865 - WR 3 Credits
This is a survey of African-American history since Reconstruction era to present. It examines their epic journey as reflected in the decades of segregation, World War I, urban life in the north, the Great Depression, World War II, and the Civil Rights Movement. The course also covers the economic, social, cultural and political developments connected with the presidency of Barack Obama and the era of globalization. Three class hours. (SUNY-AH) Course offered Fall and Spring.

HIS 109 Global History I: to the 1500s 3 Credits
This course surveys the history of human societies around the world from the beginning to 1500. By examining the social, political, intellectual, and economic developments of world civilizations including Africa, the Americas, Asia, and the Middle East, students will obtain the historical knowledge necessary to live interdependently in a diverse global community. Three class hours. (SUNY-SS/OWC). Course offered Fall only.
HIS 110  Global History II: Since the 1500s-WR  3 Credits
This course surveys the history of human societies around the world from the 1500's to the present. By examining the social, political, intellectual, and economic developments of world civilizations including Africa, the Americas, and Asia, students will gain an appreciation of the extent and diversity of the history and cultures of the non-Western World. Three class hours. (SUNY-SS/OWC). Course offered Spring only.

HIS 111  United States History I - to 1865 - WR 3 Credits
A survey of the origin of the clash between the colonies and Great Britain, the framing of the Constitution, Jacksonian Democracy and its influence on the American character, the slavery issue, the growth of industry and territorial expansion. Three class hours. (SUNY-AH) Course offered Fall and Spring.

HIS 112  United States History II - since 1865 - WR 3 Credits
A survey of the reconstruction of the nation after the Civil War, the rise of industrial and urban dominance, the struggles affecting agriculture, industry and labor, the growth of the American empire, and the increasing role of government in American life. Three class hours. (SUNY-AH) Course offered Fall and Spring.

HIS 113  Western Civilization I: Beginning to 1700s - WR 3 Credits
A survey of western regimes, society (including the structures of the economy and social classes), and culture (including religious and philosophical ideas) and the west’s relationships with other societies and cultures from the ancient world to the Scientific Revolution. Topics may include Ancient Mesopotamia, Ancient Egypt, Ancient Greece, Ancient Rome, the development of Christianity, the development of the Islamic World, the Byzantine Empire, Medieval Europe, the Mongolian Empire, the Ottoman Empire, the Renaissance, the Reformation, the English revolutions of the 1600s, and the Scientific Revolution. This course fulfills the MCC requirement for a social science elective. Three class hours. (SUNY-WC) Course offered Fall and Spring.

HIS 114  Western Civilization II: 1700s to the Present - WR 3 Credits
A survey of western regimes, society (including the structures of the economy and social classes), and culture (including religious and philosophical ideas) and the west’s relationships with other societies and cultures from the French Revolution to the present. Topics may include the Enlightenment, the Industrial Revolution, the French Revolution and the revolutions it inspired, nation-building and nationalism, European imperialism, the World Wars, the Soviet Revolution, the Great Depression, decolonization, the Cold War and its end, and the unification of Europe. This course fulfills the MCC requirement for a social science elective. Three class hours. (SUNY-WC) Course offered Fall and Spring.

HIS 115  Traditional East Asian History - WR 3 Credits
The course will survey the histories of China, Japan, and possibly additional East Asian countries up to 1600. Topics will include the developments of the Chinese and Japanese emperorships, the development of the Japanese shogunate, and the developments of East Asian philosophies and religions and other elements of East Asian culture. Three class hours. (SUNY-OWC) Course offered Fall only.

HIS 116  Modern East Asian History - WR 3 Credits
The course will survey the histories of China, Japan, and possibly additional East Asian countries from 1600 to the present. Topics will include the rise and fall of the Qing Dynasty, Edo Japan, the Meiji Restoration, World War II in Asia, the Chinese revolutions of 1911 and 1949, the Korean War, and postwar developments in East Asia. Three class hours. (SUNY-OWC) Course offered Spring only.

HIS 150  History of Sport in the United States - WR 3 Credits
A survey of sport from its earliest Native American, African and European roots to the sport and games-oriented contemporary society. Professional, amateur and intercollegiate sports for men and women, and the Olympic Games movement are examined in detail. Three class hours. (SUNY-AH) Course offered Fall and Spring.

HIS 151  Women in the United States: A Historical Perspective - WR (formerly HIS 257) 3 Credits
This course surveys the diverse history of American women from European contact to the present, with special attention given to the extensive range of women's experiences as shaped by race, class, ethnicity, gender and sexual identity. Women's relationship to and their actions in both the private and public sectors will be studied, along with varying conceptions of womanhood. In addition, the course examines how women in the United States have both influenced and have been influenced by the political, economic, social, and cultural development of American civilization. This course fulfills the MCC requirement for a humanities elective. Three class hours. (SUNY-AH) Course offered Fall and Spring.

HIS 216  Special Topics in History - WR 3 Credits
This course is designed to address specific topics of interest in history. Offerings are more specific and focused than the introductory surveys. Topics may change from semester to semester based on faculty and student interest. Three class hours. Course offered Fall and Spring.

HIS 219  Twentieth Century Europe - WR 3 Credits
The course will survey social, cultural, economic, international, and political developments in the history of Europe in the twentieth century. Prominent topics will be the causes and effects of the two world wars, European imperialism and decolonization, the development of fascism and dictatorship, the two postwar economic booms and ensuing staginations, the Cold War, the demise of the Soviet Union, and European unification. Three credits. (SUNY-WC) Course offered Fall and Spring.

HIS 220  American Urban History - WR 3 Credits
This is a survey of the development of American cities from pre-colonial times to the present, focusing on the forces that have stimulated their growth and transformation. Among the forces given consideration include the influence of immigrants and migrants, commerce and entertainment, technological and industrial revolutions, population mobility and suburbanization, private and public responses to post industrial urban decay, race and ethnic issues as well as class and gender matters. Throughout, the story of American urban life will be presented in the context of the broader patterns of the social, cultural, political and economic history of the nation. Three class hours. (SUNY-AH) Course offered Fall only.

HIS 225  History and Cultural Analysis of the Holocaust, Genocide, and Human Rights - WR 3 Credits
The Holocaust is studied as a transcendent narrative, a lens for exploring genocide and human rights. Building upon knowledge gained in American History and Western Civilization, both historical and cultural analyses are used to reflect upon the human capacity to marginalize, objectify, terrorize, and exterminate the “other” simply for existing. The course’s major theme is that, theoretically and pragmatically, liberal democracy and human rights—clearly articulated and consistently enforced—are the only constraints against the “beast” of state-sponsored or state-initiated violence. Three class hours. Course offered Fall and Spring.
Prerequisite: PSY 101 or SOC 101 or ANT 102, or permission of instructor and ENG 101 highly recommended

HIS 250  History and Cultural Analysis of the Holocaust, Genocide, and Human Rights - WR 3 Credits
The Holocaust is studied as a transcendent narrative, a lens for exploring genocide and human rights. Building upon knowledge gained in American History and Western Civilization, both historical and cultural analyses are used to reflect upon the human capacity to marginalize, objectify, terrorize, and exterminate the “other” simply for existing. The course’s major theme is that, theoretically and pragmatically, liberal democracy and human rights—clearly articulated and consistently enforced—are the only constraints against the “beast” of state-sponsored or state-initiated violence. Three class hours. Course offered Fall and Spring.
Prerequisite: PSY 101 or SOC 101 or ANT 102, or permission of instructor and ENG 101 highly recommended

HIS 275  History and Cultural Analysis of the Holocaust, Genocide, and Human Rights - WR 3 Credits
The Holocaust is studied as a transcendent narrative, a lens for exploring genocide and human rights. Building upon knowledge gained in American History and Western Civilization, both historical and cultural analyses are used to reflect upon the human capacity to marginalize, objectify, terrorize, and exterminate the “other” simply for existing. The course’s major theme is that, theoretically and pragmatically, liberal democracy and human rights—clearly articulated and consistently enforced—are the only constraints against the “beast” of state-sponsored or state-initiated violence. Three class hours. Course offered Fall and Spring.
Prerequisite: PSY 101 or SOC 101 or ANT 102, or permission of instructor and ENG 101 highly recommended
HMN - Honors Studies

HMN 295 Honors Seminar in the Humanities 3 Credits
An exploration of humanistic themes that draw upon the arts, literature, and ideas of selected periods and cultures. Emphasis will be on developing discussion skills as well as the critical examination of the honors themes through essay writing and/or projects in other media. Humanities credit. Three class hours. (SUNY-H) Course offered Fall and Spring.
Prerequisite: Permission of Coordinator of Honors Studies, and English 101 with a C or better, or placement into English 200, or instructor permission.

HMN - Humanities

HMN 101 Humanities: Experiencing Culture - WR 3 Credits
An interdisciplinary humanities course designed to introduce students to definitions and examples of culture in the Humanities. As a required part of the course, students will attend various cultural events (plays, musical performances, gallery exhibits, lectures and speeches, etc.) on campus and use the experiences as starting points to critically discuss and write about historical and contemporary ideas of culture and its products. The general knowledge areas include: The creative process, changing cultural values and social conditions, influences of scientific advancements, and global interdependence. Three class hours. Course offered Fall and Spring.
Prerequisite(s): Waiver of accuplacer reading and sentence level tests; score of 71 or higher on reading test and 82 or higher on sentence level test; or completion of TRS 200 with a C or better; or completion of TRS 105 with a C or higher; or completion of ESL 201 with a C or higher, or ENG 200 placement.

HMN 110 Self-Reliance - WR 3 Credits
Principles of independent living. An introduction to the literature and philosophy of self-reliance, and to practical ways people can provide more of their own needs for energy, shelter, food, possessions, and self-education. Each student will design his/her own self-reliance project. In addition there will be numerous hands-on class projects: home energy audits, barter, cold-frame construction, solar collector construction, organic gardens, and/or others. Discussions will focus on the economic, ecological, resource, and personal implications of a life of self-reliance and simplicity. Three class hours. Course offered Fall and Spring.
Prerequisite(s): Waiver of accuplacer reading and sentence level tests; score of 71 or higher on reading test and 82 or higher on sentence level test; or completion of TRS 200 with a C or better; or completion of TRS 105 with a C or higher; or completion of ESL 201 with a C or higher, or ENG 200 placement.

HMN 220 Western Humanities I - WR 4 Credits
An interdisciplinary search for moral, social, and political alternatives and meaning embodied in the institutions, culture, and literature of Western Civilization from the beginnings to 1600. This course is factual as well as conceptual, including a narrative history of the period covered. This course fulfills the MCC requirement for a humanities or social science elective. Writing Intensive. Four class hours. (SUNY-WC/H) Course offered Fall and Spring.
Prerequisite(s): English 101 with a grade of C or better or English 200 with a grade of C or better.

HMN 221 Western Humanities II - WR 4 Credits
An interdisciplinary search for moral, social, and political alternatives and meaning embodied in the institutions, culture, and literature of Western Civilization from 1600 to the present. This course is factual as well as conceptual, including a narrative history of the period covered. This course fulfills the MCC requirement for a humanities or social science elective. Writing Intensive. Four class hours. (SUNY-WC/H) Course offered Fall and Spring.
Prerequisite(s): English 101 with a grade of C or better, or English 200 with a grade of C or better.

HMN 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

HON - Honors Studies

HON 101 formerly IDC 101 Honors Studies: Orientation - WR 1 Credit
This is the first in a series of four 1-credit courses that comprise the common experience in the MCC Honors Institute. Through a variety of in-class discussions and out-of-class experiences, students will be introduced to the six essential components of the MCC honors experience: scholarly inquiry, self-discovery, creative expression, service learning, global awareness, and abstract thought. One class hour. Course offered Fall and Spring.

HON 102 formerly IDC 102 Honors Studies: Exploration and Discovery - WR 1 Credit
This is the second in a series of four 1-credit courses that comprise the common experience in the MCC Honors Institute. Students will build on the foundation of the first course as they are introduced to research methodologies in various academic disciplines. Students will also engage in a common service learning project. One class hour. Course offered Fall and Spring.

HON 195 formerly IDC 195 Honors Seminar in Critical Analysis - WR 3 Credits
This course begins with presentation and exploration of core critical thinking concepts including but not limited to arguments, fallacies, rules of inference and evidence. Students will examine a selected topic/theme that will develop critical thinking, discussion leading and expository writing abilities. Three class hours. (SUNY-H) Course offered Fall and Spring.
Prerequisite: Permission of Coordinator of Honors Studies.

HON 201 formerly IDC 201 Honors Studies: Scholarly Process - WR 1 Credit
This is the third in a series of four 1-credit courses that comprise the common experience in the MCC Honors Institute. Students will conduct the scholarly project they proposed in the second course and will continue their engagement in a service learning project. One class hour. Course offered Fall and Spring.

HON 202 formerly IDC 202 Honors Studies: Scholarly Presentation - WR 1 Credit
This is the fourth in a series of four one-credit courses that comprise the common experience in the MCC Honors Institute. Through a variety of in-class discussions and out-of-class experiences, students will complete work on a scholarly project which they will ideally present at Scholars’ Day and at a regional honors conference and/or professional conference in their discipline. One class hour. Course offered Fall and Spring.
HPR - Health Professions

HPR 101 Multicultural and Diversity Issues in Healthcare and Education 3 Credits
This course will investigate interdisciplinary perspectives and approaches that address complex multicultural and diversity impacts on healthcare and education in contemporary society. Students will use self-examination, social analysis, case studies and competency building techniques to develop the critical knowledge, attitudes and skills necessary to recognize and understand the needs, expectations and behaviors of multicultural and diverse populations in order to provide effective and culturally sensitive communication and deliver culturally congruent, safe and ethical education and/or client health care. Three class hours. Course offered Fall and Spring.

HPR 102 Introduction to Homeland Security Perspectives on Terrorism and Homeland Security 3 Credits
Terrorism and defending against it are not modern concepts. In fact, terrorism has its roots in America back to the Revolutionary War. This course is about understanding terrorism, counter-terrorism, violence, and how they have impacted America. Students will learn about historical examples of terrorism beginning with the Revolutionary War and extending through the post 9/11 period. Course content will include coverage of various terrorist events at home and abroad, America’s governmental response, its impact to public and private sectors and individuals. Students will also learn about how past and current experiences with terrorism are defining future strategies. Three class hours. (SUNY-AH) This course fulfills the MCC requirement for a social science elective. Course offered Fall and Spring.

HPR - Health Professions

HPR 201 formerly IDC 201
HPR 202 formerly IDC 202
HPR 195 formerly IDC 195
IDC 295
MAR 200
MTH 160
MTH 210
PHL 101
PHL 103
PHY 121
PHY 161
PSY 101
PSY 201
SBS 295
SOC 101 Course offered Fall and Spring.

HSM - Homeland Security Administration

HSM 101 Introduction to Emergency Management 3 Credits
This course is intended to provide information that will enable persons just entering the profession or expanding their roles to have the ability to work with emergency management issues. The course provides an overview of the characteristics, functions, and resources of an integrated system and how various emergency management services work together in an integration of resources and capabilities. In addition, this course will provide and analysis of current actions and threats impacting emergency management. Emphasis will be placed on how this system is applied to all hazards for all government levels, across the four phases and all functions of emergency management. Three class hours. Course offered Fall and Spring.

HSM 102 Introduction to Homeland Security 3 Credits
This course is an introduction to the concept of homeland security. The course will define and explain homeland security. The U.S. Department of Homeland Security will be thoroughly analyzed and its mission will be investigated. This course will also address the threat of chemical, biological, radiological, nuclear and explosive devices and the use of these weapons of mass destruction. The importance and basic elements of a planned response, methods used to prevent the importation of weapons of mass destruction into the U.S. and what is being and what can be done to prevent another large-scale terrorist incident in the United States will be covered. Three class hours. Course offered Fall and Spring.

HSM 103 Historical and Contemporary Perspectives on Terrorism and Homeland Security 3 Credits
Terrorism and defending against it are not modern concepts. In fact, terrorism has its roots in America back to the Revolutionary War. This course is about understanding terrorism, counter-terrorism, violence, and how they have impacted America. Students will learn about historical examples of terrorism beginning with the Revolutionary War and extending through the post 9/11 period. Course content will include coverage of various terrorist events at home and abroad, America’s governmental response, its impact to public and private sectors and individuals. Students will also learn about how past and current experiences with terrorism are defining future strategies. Three class hours. (SUNY-AH) This course fulfills the MCC requirement for a social science elective. Course offered Fall and Spring.

HSM 104 Public Safety Communications 3 Credits
This course will provide students with an understanding of the fundamentals of communication and their application in emergency situations. Students will examine the use of oral and written communications in various levels of emergency and crisis situations and will learn to identify internal and external audiences and analyze their information needs. Students will also gain an understanding of the use of communications systems and the role of technology in facilitating communication during crises. Three credits. Course offered Fall and Spring.

HSM 107 Social Media: Issues and Impacts 3 Credits
An introduction to the field of social media. This course will define and explain social media and its impact on personal, organizational and global security. The course will address issues related to the responsible and effective use of social media; and the exploitation of information for social, economic, political and criminal gain. This course fulfills the MCC requirement for a humanities elective. Three class hours. Course offered Fall and Spring.

HSM 202 Organizational and Facility Security 3 Credits
This course will provide students with a comprehensive overview of physical security policies, procedures, techniques and equipment. Topics covered include perimeter protection, intrusion detection, access control, closed circuit television (CCTV), risk and vulnerability assessments, insurance requirements, business continuity planning and acts of violence. The focus of this course will be on traditional methods of physical security (e.g. hardware, risk assessments, and business continuity). This course will also examine developing security technology and its application to reduce internal and external threats to businesses and organizations. Three class hours. Course offered Fall and Spring.
HSP - Hospitality

HSP 101 Introduction to the Hospitality Industry 3 Credits
This course is a study of the fascinating worlds of lodging, food and beverage service, meeting planning, travel and tourism, and the related businesses that make up the hospitality industry. Provides an overview of the components of this vast industry and their interlocking network. Three class hours. Course offered Fall and Spring.

HSP 102 Hospitality Service 4 Credits
Students will utilize service skills by interacting with customers and team members in an actual hospitality environment. In addition to this hands-on component, students will examine customer related skills in a classroom environment through the use of lecture, role play, and small group conferences. One class hour, four laboratory hours, one conference hour.

HSP 201 Hospitality Human Resources Management 3 Credits
This course examines the theoretical and hands-on applications of management and supervisory practices in the hospitality industry. Communication strategies, recruitment, performance standards, evaluation techniques, diversity issues, and staff training are a few of the topics that will be discussed. Three class hours. Course offered Fall and Spring.

HSP 202 Introduction to Conference and Event Planning 3 Credits
This course is a comprehensive overview of the process of planning meetings, conferences and special events. Step-by-step organization, preliminary planning, site selection and timing strategies are among the topics to be discussed. Students will discover where conference and event planning fits into the overall scope of the hospitality industry. Three class hours. Course offered Fall and Spring.

HSP 204 Advanced Conference and Event Planning 3 Credits
This course is offered for students who are interested in pursuing a career in conference and event planning. This course focuses on the fundamentals necessary to build and maintain a sustainable career in the event management field. Topics discussed will include: Creating a mission and vision statement, strategic planning, budgeting, human resource management, marketing and assessment. Students will create and execute a special event including creating a budget and marketing plan. Two class hours, two laboratory hours. Course offered Spring only.
Prerequisite(s): HSP 202

HSP 211 Hospitality Law 3 Credits
A study of the laws impacting the hospitality industry. Topics include An Introduction to Law, Court Systems, Civil Rights Law, Employment Law, Contracts, Torts, Regulations Governing the Sale of Food and Alcohol, Responsibility for Guests' Property, Legal Rights of Innkeepers and Restauranteurs, and Casino Law. Fall Semester only. Three class hours. Course offered Fall and Spring.

HSP 222 Integrated Studies for Hospitality Management 1-3 Credits
A specialized focus on the alliance of the food, hotel, and tourism management areas. This course emphasizes the interrelationship of these three areas in the field of catering, resort management, and destination appeal. Practical observation is provided either through domestic or international experiences via air, rail, ship, or motorcoach transportation. Hotel inspections and destination sightseeing, as well as restaurant tours, are an integral part of the course. Since the location, duration of the course, and course assignments will vary each semester, the credit hours also vary from one to three credits. Specific course requirements for each course can be obtained from the Department. Special fees include the cost of transportation to the course site, lodging, food, and miscellaneous expenses. Five to fifteen class hours, thirty to ninety laboratory hours, depending on credits. Course offered Fall and Spring.

HSP 251 Hospitality Marketing 3 Credits
Students will learn the theoretical concepts of developing a start-up business and will be able to experience through a simulation the planning, opening, operating and ownership realities of a hospitality/tourism business. The BYOB Simulation uses a unique technology platform based on a multi-participant interface through a real-time, online experience to provide learners with a powerful strategic hospitality/tourism management simulation. Core competencies are achieved in basic accounting, inventory management, human resources, marketing, and operations management. Additional skill sets are acquired through the intensive use of computer competencies such as Internet literacy, uploading, e-mailing, downloading and instant messaging. Students will draw from previous course content to enable successful completion of this course. Three class hours. Course offered Fall only.
Prerequisite: Must be HM Major; MCC Math Placement Level 2 or higher or TRS 092 with a grade of C or higher

HSP 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.
Prerequisite(s): HSP 202

HTL - Hotel Technology

HTL 105 Hotel Operations 3 Credits
This course is designed to provide students with a comprehensive, fundamental understanding of how hotels are managed with respect to the rooms perspective (reservations, front desk, housekeeping, engineering, and security). Through computer simulation, property tours, and guest lectures, students will be exposed to the operational positions and responsibilities of the different areas of the rooms division. Food and beverage, sales and marketing, and the accounting office will be addressed with respect to how each of these departments interact with the rooms division. Spring Semester only. Three class hours. Course offered Fall and Spring.

HTL 206 Hotel Sales and Marketing 3 Credits
Students will be introduced to the principles and procedures of hotel sales and marketing by taking part in “learn by doing” activities. A sales blitz, a high pressure sales experience, and developing a marketing plan for a local hotel may be included. This course addressed market research, advertising, public relations, and the operation of a sales department within a hotel. Sales techniques as they relate to individuals, companies, organizations, and groups will also be explored. Fall Semester only. Three class hours. Course offered Fall and Spring.

HTL 208 Food, Beverage, and Labor Cost Controls 3 Credits
An introduction to the principles and procedures of effective cost controls in a profit-oriented environment. Discussions include efficient receiving and distributing, menu analysis in terms of food cost percentages, and proper profit and loss statement controls. Spring Semester only. Three class hours. Course offered Spring only.
Prerequisite: MTH 098 or MTH 104 or MTH 130 or MTH 160 or MTH 185 or higher, or permission of department.

HTL 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.
Prerequisite: Must be HM Major; MCC Math Placement Level 2 or higher or TRS 092 with a grade of C or higher
HUM - Human Services

HUM 100 Entry Level Skills for the Human Services Student 3 Credits
This is a prerequisite course for students presently enrolled in TRS 105 who would like to enroll in HUM 101 Introduction to Human Services. It will include an overview of the field, career choices within Human Services, an understanding of the field work experience, self assessment, and a development of personal learning goals and plans. Three class hours. Course offered Fall and Spring.

HUM 101 Introduction to Human Services 4 Credits
Introduction to generic issues in human services. Role definition, boundaries, and ethics of professional relationships. Examination of self-awareness in the helping relationship and development of beginning group skills. Development and practice of observation, listening, recording and interviewing skills. Discussion and analysis of field work experiences. Students must be qualified (based on Accuplacer) to take ENG 101 in order to register for this course. Four class hours. In conjunction with this course, the student must take and pass HUM 111 Field Work in Human Services I. Course offered Fall and Spring. Prerequisite: Placement exam at ENG 101 level. Corequisite: HUM 111.

HUM 102 Basic Helping Skills 4 Credits
Development of basic helping skills, including sensitivity, empathy, attending, questioning, confrontation, and problem solving. Examination and evaluation of client assessment, goal setting, case planning, case management. Further practice in group process and continuation of skill development in observing, listening, interviewing, recording and reporting. Discussions and analysis of field work experience. Students must be qualified (based on Accuplacer) to take ENG 101 in order to register for this course. Four class hours. In conjunction with this course, the student must take and pass HUM 112 Field Work in Human Services II. Course offered Fall and Spring. Prerequisite: HUM 101 with a grade of C- or better.

HUM 106 Human Services Focus 4 Credits
Designed to allow maximum, flexible response to specific needs of groups and agencies with particular human service problems. Details of specific offerings will be available at registration time each semester offered. Students must be qualified (based on Accuplacer) to take ENG 101 in order to register for this course. Four class hours. In conjunction with this course, the student must take and pass HUM 116 Field Work in Human Services Focus. Course offered Summer only. Prerequisite: HUM 101 with a grade of C- or better.

HUM 107 Models of Helping 4 Credits
Examination of the models, theories and roles that guide the practice of Human Services. The organizational structure of human services agencies will be examined and the systemic issues that impact clients and agencies will be analyzed. Career and transfer opportunities will be explored. Advanced group process, and field work experience will be discussed and analyzed. Students must be qualified (based on Accuplacer) to take ENG 101 in order to register for this course. Four class hours. In conjunction with this course, the student must take and pass HUM 211 Field Work in Human Services III. Course offered Fall and Spring. Prerequisite: HUM 102, 112 with a grade of C- or better.

HUM 111 Field Work in Human Services I 2 Credits
On the basis of his or her particular interests, each student chooses the kind of community agency in which he/she would like to train. Under the guidance of experienced agency supervisors, the student begins the reality testing process in the paraprofessional role. Carefully graded opportunities to take responsibility for agency clients. In conjunction with this course, the student must take and pass HUM 101 Introduction to Human Services. Open only to students in HUM 101. Nine field work hours per week. Course offered Fall and Spring. Prerequisite: HUM 101 with a grade of C- or better.

HUM 112 Field Work in Human Services II 2 Credits
Student chooses this field work placement in accordance with his or her emerging career goals. Opportunities for taking increasing amounts of responsibility for agency clients. Planning with experienced agency supervisor to develop specific skills needed to function effectively as a member of the agency’s helping service team. In conjunction with this course, the student must take and pass HUM 102 Basic Helping Skills. Open only to students in HUM 102. Nine field work hours per week. Course offered Fall and Spring. Prerequisite: HUM 111 with a grade of C- or better.

HUM 116 Field Work in Human Services Focus 2 Credits
A Human Services field work course designed to meet the needs of students in Human Services focus courses. This course provides practical experience in the service field for each Human Services focus course. In conjunction with this course, the student must take and pass HUM 106 Human Services Focus, Open only to students in HUM 106. Nine field work hours per week. Course offered Summer only. Prerequisite: HUM 111 with a grade of C- or better; co-requisite: HUM 106.

HUM 130 Introduction to the Disability Support Services Field 3 Credits
This course will provide students with an orientation to direct services in the field of disability. It will give a broad overview of the essential topics in providing direct services and address common expectations and issues direct service providers encounter in this field. Three class hours. Course offered Fall and Spring. Prerequisite: HUM 101 with a grade of C- or better.

HUM 135 Roles and Responsibilities in Disability Support Services 3 Credits
This course is designed to explore careers in the disability field and also examine service systems that provide support to people with disabilities. The course will emphasize experiential opportunities to meet and observe individuals from a variety of professions in the field, which will foster a deeper understanding of roles and responsibilities in the disability field. Three class hours. Course offered Spring only.
HUM 211 Field Work in Human Services III 2 Credits
Students select field placement to enhance attainment of individual career goals. Under experienced agency supervisors, students carry increased responsibility for clients and for agency program planning. Further development of the specific helping skills needed for effective functioning in the chosen agency. In conjunction with this course, the student must take and pass HUM 201 Models of Helping. Open only to students in HUM 201. Nine field work hours per week. Course offered Fall and Spring. Prerequisite: HUM 112 with a grade of C- or better.

HUM 212 Field Work in Human Services IV 2 Credits
Field work placement in the special field of prospective employment. With the guidance of experienced agency supervisors, students carry increasing responsibility for program planning and coordination with other agencies, and whenever possible, experience with the change-making process in agency and community. Routine supervision of less experienced agency employees. In conjunction with this course, the student must take and pass HUM 202 Human Service Systems. Open only to students in HUM 202. Nine field hours per week. Course offered Fall and Spring. Prerequisite: HUM 211 with a grade of C- or better or permission of department.

HUM 220 Working with Clients Post-Incarceration 3 Credits
This course addresses issues that may be encountered by those whose work brings them into contact with individuals who are returning, or have recently returned, to society from incarceration. It includes understanding of the stigma attached to their legal status, the barriers that they may encounter, and the sometimes misguided mind-set with which some formerly incarcerated individuals anticipate their return to families and society as a whole. Additionally, the course includes topics such as interaction with legal supervision, case management, housing, and employment for the formerly incarcerated. Three class hours. Course offered Fall and Spring. Prerequisite: HUM 101/HUM 111 or permission of instructor.

HUM 230 Individualized Planning and Documentation for Disability Support Services 3 Credits
This course will provide an overview of documentation and compliance requirements across service systems, including early intervention services, school-age services, vocational rehabilitation services, mental health services, and day services. In addition, the course will incorporate workshops within a person centered planning framework for developing and implementing individualized supports for individuals with disabilities. Three class hours. Course offered Fall and Spring.

HUM 235 Supporting and Communicating with People with Significant Disabilities 3 Credits
This course is an exploration of the ways in which people with significant disabilities are supported in their communities. The course will emphasize concepts of positive behavioral support and communication strategies to facilitate self-determination and independent decision-making in a person’s daily life. Students will learn about key concepts and the philosophy models of services systems that support people with significant disabilities. Three class hours. Course offered Fall and Spring.

HUM 236 Contemporary Issues in the Field of Disability Support Services 3 Credits
This course will provide an in-depth exploration of contemporary issues in the field of direct disability support services, starting with the historical roots and current events in the disability rights movement, moving into specific contemporary issues, and ending with the most current controversial topics in the field. Three class hours. Course offered Fall and Spring.

HUM 238 Contemporary Issues in the Field of Disability Support Services 3 Credits
This course will provide an in-depth exploration of contemporary issues in the field of direct disability support services, starting with the historical roots and current events in the disability rights movement, moving into specific contemporary issues, and ending with the most current controversial topics in the field. Three class hours. Course offered Fall and Spring.

HUM 250 Introduction to Aging for the Human Services Worker 3 Credits
Students will examine contemporary issues impacting older adults such as special needs, changing roles experienced with aging, community resources, legislation and programs designed to meet these multifaceted needs. Students will develop methods for planning and implementing diverse activities and other approaches to encourage maintenance of health and self-sufficiency of the mature adult. Three class hours. Course offered Fall and Spring.

HUM 252 Leadership of Aging for the Human Services Worker 3 Credits
This course will explore the role of the human services worker as a leader in the field of aging. Students will examine leadership styles and their impact on the delivery of services to older adults. Topics covered may include: motivation, supervision, conflict resolution, and change management. Three class hours. Course offered Fall and Spring.

HUM 259 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

HVA 101 Basic Refrigeration Theory 3 Credits
Covers the physical principles of refrigeration and the refrigeration cycle. Students will be introduced to the components of the refrigeration system including compressors, condensers, expansion devices, evaporators, coolers, freezers, and refrigerants. Two class hours, two laboratory hours. Course offered Fall and Spring.

HVA 102 Air Conditioning Theory 3 Credits
Covers the physical principles of air conditioning, psychrometrics and air movement. Components found in today’s air conditioning systems will be examined. Students will learn how to charge and evacuate systems. Other topics included are: pressure, regulating and bypass controls, diffusers, piping procedures, traps and high velocity systems. Two class hours, two laboratory hours. Course offered Fall and Spring. Prerequisite: HVA 101.

HVA 103 Heating Systems 3 Credits
Servicing modern heating systems, whether they are gas, electric or oil, requires a thorough understanding of basic heating concepts. This course provides the student with the technical knowledge as well as the laboratory skills to begin their career in heating service. Two class hours, two laboratory hours. Course offered Fall only.

HVA 104 Commercial Air Conditioning and Heat Pumps 3 Credits
Deals with the basic principles of air conditioning as they are applied to large commercial systems. The principles of heat pumps will be included. Topics covered include: gas and electric heating/cooling of top units, economizers and large air distribution systems. Three class hours. Course offered Spring only. Prerequisites: HVA 101, HVA 102, HVA 105, PHY 100; co-requisite: MTH 135 or permission of department.

HVA 105 Electric and Motor Controls 3 Credits
Covers basic principles of electricity and electric motor theory as it is found in the heating, ventilating, air conditioning industry. Topics covered are: series and parallel circuits, Ohm’s law, amperage, voltage, watts, transformers, relays, contactors, wire sizing, distribution, and capacitors. Two class hours, two laboratory hours. Course offered Fall and Spring.
HVA 106  HVAC Workplace Training  3 Credits
This course is designed to prepare the HVAC technician for the legal and safety issues related to the industry. Employee, employer, and customer relations will be explored. The student will learn to self-evaluate their personal and technical skills and prepare a professional plan for growth. Three class hours. Course offered Fall and Spring.

HVA 201  Electronic Controls and Troubleshooting  3 Credits
A review of AC and DC theory and wiring diagrams. Use of multimeters, watt/hour meters, ammeters, oscilloscopes and power sources. Students will devote considerable time to learning how to troubleshoot electrical problems through the use of load simulators such as the Ranco system and printed circuit boards. Three class hours. Course offered Fall and Spring.
Prerequisites: HVA 105, MTH 135, PHY 100, or permission of department.

HVA 202  Boiler Systems  3 Credits
Covers the principles and theory of hot water and steam boilers. Topics covered are: design, controls and pumps and valves of boilers, New York State boiler codes, and the servicing of hot water and steam boiler systems. Three class hours. Course offered Fall only.
Prerequisites: HVA 105, MTH 135, PHY 100 or permission of department.

HVA 203  Commercial Load Calculation  3 Credits
Covers all the elements related to calculating loads in commercial applications. Topics covered will include: reading building blueprints, evaluating building conditions, heating and cooling load calculation, equipment selection, duct distribution systems, and use of fire dampers, access doors, detectors, diffusers, control systems. Three class hours. Course offered Fall and Spring.
Prerequisites: HVA 104, MTH 098 and PHY 100.

HVA 204  Energy Management  3 Credits
Covers the design and service of the appropriate energy management system for a given facility. Topics to be covered are: evaluation of mechanical systems, building structure, needs of occupant, duty cycling, microprocessor controls, preventative maintenance and cost analysis. Three class hours. Course offered Fall and Spring.
Prerequisites: HVA 104 and HVA 105.

HVA 205  New Products  3 Credits
An overview of all types of equipment currently on the market and in use in heating, ventilating, and air conditioning installations, both incidental and commercial. It is designed to keep the student up to date with information on state-of-the-art developments in the field. Three class hours. Course offered Fall and Spring.
Prerequisites: HVA 101, HVA 102 and HVA 105.

HVA 206  Advanced Heating Systems  3 Credits
An advanced level course in heating systems focusing on fossil fuel technology and venting. There will also be discussions in calculating fuel economies and greenhouse effects. Three class hours. Course offered Fall and Spring.
Prerequisites: HVA 103, HVA 104, MTH 135 and PHY 100.

HVA 207  Computers in HVAC  3 Credits
A course demonstrating the role of the computer in the HVAC technologies. The student will receive an overview of the operation of six current computer programs in the HVAC specialties. Three class hours. Fall semester only. Course offered Fall and Spring.
Prerequisites: HVA 102, HVA 103 and HVA 104.

HVA 208  Refrigerant Technology  1 Credit
A thorough understanding of the various refrigerant types are necessary for the heating, ventilating and air conditioning service technician. This short course will explore CFC's, HFC's, HCFC's and the refrigerant retrofit procedures necessary in today's changing energy field. Three class hours. Course offered Fall and Spring.
Prerequisites: HVA 101, HVA 102, HVA 104 or permission of department.

HVA 209  Mechanical Estimating  4 Credits
As many heating, ventilating and air conditioning personnel advance in their careers, the aspiration for many is to enter the area of estimating. This course will explore fundamentals of blueprint reading, mechanical takeoff, reading mechanical specifications, equipment and labor estimating, both manually and by computer. This course is applicable to both residential and commercial contractors. Four class hours. Course offered Spring only.
Prerequisites: HVA 101, HVA 102, HVA 103, HVA 104, HVA 105 or permission of department.

HVA 210  Commercial Refrigeration  3 Credits
Commercial refrigeration service is a specialization within the heating, ventilating and air conditioning industry. This course will provide the student with the understanding of ice machines, reach-in coolers and freezers, as well as walk-in coolers and freezers. Emphasis will be placed on repair of restaurant type equipment. Two class hours followed by two lab hours. Course offered Fall and Spring.
Prerequisites: HVA 101, HVA 102, HVA 104, HVA 105 or permission of department.

HVA 211  Industrial Mechanical Systems  3 Credits
In response to continued emphasis on energy conservation, the heating, ventilating and air conditioning industry has seen a resurgence in applications utilizing chillers, variable air volume and heat recovery systems. This course will provide the student with an understanding of these complex systems. Three class hours. Course offered Spring only.
Prerequisites: HVA 101, HVA 102, HVA 103, HVA 104 or permission of department.

HVA 220  Sheet Metal Fabrication  3 Credits
This course will provide students with the theory and application of sheet metal fabrication for use in the field of residential and light commercial HVAC installation. Students will gain a working knowledge of floor and hand tools used in the trade and relevant safety issues. Geometry and math associated with fabrication are an integral part of this course. Two class hours, two laboratory hours. Course offered Fall and Spring.

HVA 271  Cooperative Education-Heating, Ventilating and Air Conditioning  4 Credits
Students in the Heating, Ventilating and Air Conditioning certificate and degree programs may participate in a cooperative educational experience as a program elective. Students enrolled in this program must be able to work and document a minimum of 180 hours per semester. Both paid and unpaid work experience is acceptable. The Department Chair and the Co-op Director must approve the HVAC/R employer. In addition to the field work, students must attend a two hour per week classroom seminar. The Co-op Office, located in Rm. 3-108, will assist students in obtaining jobs. Present jobs may qualify. Students must have at least a 2.0 GPA to qualify for this opportunity. Part time students will be required to purchase student insurance while enrolled in this course. Course offered Fall and Spring.
Prerequisite: HVA 101.

HVA 275  Modern Welding Techniques  3 Credits
This course is an introduction to MIG and TIG welding and plasma cutting. These skills are practical and often essential for various craftspersons. Students will work with aluminum, stainless steel, and other common metals in this course. This course is offered off-site at Mahaney Welding. In addition to tuition, part-time students must purchase student insurance. Students should also expect to purchase a pre-packaged kit of course materials including their safety equipment and book. Two class hours, two laboratory hours. Course offered Fall and Spring.

HVA 290  Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

IDE - Honors Studies

IDE 295 Interdisciplinary Honors Seminar-WR
3 Credits

An in-depth examination of a theme based on a multidisciplinary blend of related issues. Participants are required to read extensive background material and to write an interpretive essay developing the theme or related topic. General elective credit. Three class hours. With permission of advisor, may be substituted for literature, humanities or social science elective. (SUNY-H) Course offered Fall only.
Prerequisite: Permission of Coordinator of Honors Studies.

IDE - Interior Design

IDE 101 Introduction to Interior Design I
3 Credits

This course addresses theoretical approaches to design by considering design precedents, theory, and process. Course material will review the development of the built environment with an emphasis on interior design. The elements and principles of design will be explored with consideration of their application to the interior environment. The design process, including programming and space planning, will be discussed as a basis for successfully approaching design problems. Three class hours. Course offered Fall and Spring.

IDE 102 Introduction to Interior Design II
3 Credits

As a continuation of IDE101, this course explores the physical properties of the built environment. Through discussion of building codes, construction techniques, mechanical, electrical, and plumbing systems a basic understanding of the built environment will be addressed. Consideration will be given to interior building components, materials, and furnishings. Three class hours. Course offered Spring only.
Prerequisite: IDE 101 with a grade of C or better

IDE 121 Interior Design Communication I
3 Credits

Course introduces the student to methods of design communication including model building and mechanical drawing. Emphasis is placed on the study of the relationships of space and form and how these are communicated in both two and three dimensional media. Six laboratory hours. Course offered Fall only.
Prerequisite: Math placement Level 3 or higher, or TRS 094 or higher

IDE 122 Interior Design Communication II
3 Credits

Introduces the student to perspective drawing techniques as used to present design concepts to the client. Emphasis will be placed upon one and two-point perspective drawing and the communication of finish selections through the use of marker rendering. Six laboratory hours. Course offered Spring only.
Prerequisite: IDE 121 with a grade of C or better

IDE 131 Building Information Modeling
3 Credits

This course introduces the student to methods used to graphically communicate design choices. Architectural drawings will be developed from sketch to computer-generated images. Attention for most of the course will focus on the incorporation of building information modeling software into the design and communication process. Six laboratory hours. Course offered Fall and Spring.

IDE 132 Digital Visualization Techniques
3 Credits

This course introduces the student to a variety of software applications that may be used to explore design solutions and to communicate those solutions to the client. Through a series of projects students will develop virtual models of spaces, forms, and the application of lighting in the virtual environment. Six lab hours. Course offered Fall and Spring.
Prerequisite: IDE 131.

IDE 160 CAD for Interiors
3 Credits

Provides students with the basic knowledge necessary to complete two-dimensional architectural drawings using CAD software. Emphasis will be placed on development of multiple views and integration of revisions. Two class hours, two laboratory hours. Course offered Spring only.
Prerequisite: IDE 121 with a grade of C or better.

IDE 201 Interior Design III
3 Credits

Provides practical application of interior design concepts to the residential design project. Students will work on a variety of residential problems with emphasis on client contact and interviewing, program development, and design development. Communication of design concepts via a variety of media and presentations will be required. Two class hours, two laboratory hours. Course offered Fall only.
Prerequisite(s): IDE 122, IDE 160, and IDE 102 with a grade of C or better; Co-requisite: IDE 260

IDE 203 Interior Design IV
3 Credits

Provides practical application of interior design concepts to the nonresidential design project. Students will work both individually and in groups, on a variety of nonresidential problems with emphasis on issues of accessibility and ergonomics. Communication of design concepts via a variety of media and presentations will be required. Two class hours, two laboratory hours. Course offered Spring only.
Prerequisite(s): IDE 201

IDE 207 Interior Design History-Modern
3 Credits

Identifies important periods, styles, interior designers, and manufacturers from the 19th century forward. Discusses the impact of the Industrial Revolution and how it changed the concept of interior design and decorative accessories. Modern technological influences and 21st century issues will be emphasized. Three class hours. Course offered Fall only.
Prerequisite: IDE 102.

IDE 250 Color and Light
3 Credits

This course explores the relationship of color and light, focusing on the development of interior lighting systems. Specific attention will be given to emerging lighting technologies and their application in the interior. Two class hours, two laboratory hours. Course offered Spring only.
Prerequisite(s): IDE 102 with a grade of C or better; IDE 132 with a grade of C or better.

IDE 260 CAD for Interiors II
3 Credits

This course continues the development of computer-aided drafting skills begun in IDE 160. Emphasis will be placed upon advanced operations including 3D modeling, surface effects and rendering, and lighting effects. Two class hours, two laboratory hours. Course offered Fall only.
Prerequisite: IDE 160 with a grade of C or better; Co-requisite: IDE 201

IDE 270 Interior Design Seminar
3 Credits

This course covers the use of digital drawing, photo-editing, and website design as means of developing self promotion through the creation of resume and portfolio materials. Discussion will address transfer options as well as the many possible career paths that may be pursued in the field. Two class hours, two laboratory hours. Course offered Fall only.
Prerequisite(s): IDE 102 with a grade of C or better; IDE 132 with a grade of C or better.

IDE 290 Independent Study Variable Credit

See the Department Chairperson. Course offered Spring only.

INT - Industrial Instrumentation Technology

INT 110 Pneumatic and Mechanical Measurements
4 Credits

General classes of pneumatic/mechanical transducers are studied with particular emphasis upon fundamental physical principles upon which operation depends. Laboratory problems involve transducers in pneumatic/mechanical measuring systems. Pneumatic transmitter mechanisms and sub-assemblies are also studied. Three class hours, three laboratory hours. Course offered Fall and Spring.
INT 210  Digital Process Control Systems  
5 Credits
An introduction to and survey of the principles and process control applications of digital logic elements, Boolean algebra, binary arithmetic, digital computers, and digital computer interface hardware. Mini- and micro-computer internal organization and digital handling techniques are emphasized. Digital computer control of simple basic processes will be investigated. Also an introduction to programmable controllers and their use in process control will be covered. Three class hours, four laboratory hours. Course offered Fall and Spring.

INT 290  Independent Study  
Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

ITA - Italian/Foreign Language

ITA 101  Elementary Italian I  
3 Credits
Designed for students with no previous experience in the language. Focuses on communicative skills of listening comprehension, speaking, reading, and writing. Includes high frequency vocabulary, basic constructions, common phrases, and cultural aspects. Also stresses student participation in skills development. ITA 101 is strongly recommended for oral fluency especially for students transferring to four-year institutions. Three class hours. (SUNY-FL) Course offered Fall and Spring.

ITA 102  Elementary Italian II  
3 Credits
Continuation of ITA 101 with emphasis on basic language skills for communication and on cultural aspects to promote understanding and appreciation of Italian culture. ITA 112 is strongly recommended as a companion course to develop oral fluency in conversation, especially for students transferring to four-year institutions. Three class hours. (SUNY-FL) Course offered Fall and Spring. Prerequisite: ITA 101 or one year of high school Italian or equivalent.

ITA 103  Intermediate Italian I  
3 Credits
Continued study of grammar and structure with the emphasis on oral expression; cultural topics are included. Three class hours. (SUNY-FL) Course offered Fall only. Prerequisite: ITA 102 or two years high school Italian or equivalent.

ITA 111  Elementary Italian Conversation I  
2 Credits
Intensive participation in the spoken language to develop and improve oral fluency in conversation. Strongly recommended as a companion course to ITA 101 especially for students transferring to four-year institutions. Two class hours. Course offered Fall only. Corequisite: ITA 101.

ITA 112  Elementary Italian Conversation II  
2 Credits
Intensive participation in the spoken language to develop and improve oral fluency in conversation, especially for students transferring to four-year institutions. Two class hours. Course offered Spring only. Prerequisite: ITA 102 taken concurrently, or one year high school language, or ITA 101.

ITA 207  Cinema for Italian Conversation  
3 Credits
In this course, students will improve their Italian conversational skills through the discussion of films in Italian. Student presentations will help the students improve their public speaking skills. In addition, students will improve their listening comprehension through exposure to native speech. The films will introduce students to culture, some history, vernacular speech and regional accents. This course offers a new and different vision of language learning and use. The films serve as a catalyst for thought provoking cultural and linguistic examination. This offers the students the ability to express themselves and to expose themselves to the rich culture of Italy. The students will broaden their knowledge and analyze, compare and enrich their vocabulary and hone their analytic and critical thinking skills through their enhancement, solidification of the knowledge of the language, and its variety of uses. Three class hours. (SUNY-FL) Course offered Fall and Spring. Prerequisite(s): ITA 103, or excellence in high school Italian 5, the equivalent, or permission of instructor.

ITA 221  Italian Culture on Location  
3 Credits
This course is designed to provide the opportunity to see and experience the richness of Italy through the unique experience of travel. The core part of this course will be a stay in the country, with visits to the main cities and cultural centers. Class meetings prior to the trip will focus on topics that will help the student to prepare for the experience, and meetings after the trip will provide a time for debriefing, reporting, evaluation, and assimilation. The student is expected to complete ten tasks during his/her stay, make an oral presentation, and prepare a portfolio of the trip. This portfolio can be a personal journal, photo display, video recording, or a combination thereof. Three class hours. On location hours variable depending on the field experience offered. Course offered Fall and Spring.

JPN - Japanese/Foreign Language

JPN 101  Elementary Japanese I  
3 Credits
Designed for students with little or no previous experience in contemporary Japanese. Emphasizes oral communication and listening comprehension skills. Also focuses in developing mastery of the Japanese writing system for basic reading and writing of simple sentences and short paragraphs. Hiragana, Katakana and Kanji characters are taught so that students will be able to communicate both orally and in written form in the most essential everyday life situations. Students will also learn Japanese customs, traditions and culture. Three class hours. Offered Fall, Spring and Summer Semesters. (SUNY-FL) Course offered Fall and Spring.

JPN 102  Elementary Japanese II  
3 Credits
Students will continue strengthening their communicative skills (pronunciation, syllable stress) and writing skills using the Japanese writing system (Hiragana, Katakana and Kanji characters) that are necessary for reading and writing simple sentences and short paragraphs. Grammatical structures will be taught so that students will be able to communicate correctly, both orally and in written form in the most essential everyday life situations. Students will also learn Japanese customs, traditions, and culture associated with major life events, holidays and social interactions. Three class hours. (SUNY-FL) Course offered Spring only. Prerequisite(s): JPN 101, the equivalent, or permission of the instructor. Memory and length of time since last studied are factors in successful placement.

JPN 103  Intermediate Japanese I  
3 Credits
Continued study in Japanese for those with a firm foundation in elementary Japanese communication, written and oral. Grammar and vocabulary are continued at a higher level so that the student develops strong reading and writing skills in order to create complex sentences and short paragraphs. In this class, the student will attain oral and listening skills to successfully function in a variety of daily situations. Cultural topics are included in the study of grammar and structure. Memory and length of time since last studied are factors in successful placement. Three class hours. (SUNY-FL) Course offered Fall and Spring. Prerequisite: JPN 102, or successful completion of equivalent, or permission of the instructor.

www.monroecc.edu/go/courses
LAW - Law

LAW 101 Fundamentals of the Law 3 Credits
A study of how civil and criminal law govern society. Purchases, leases, contracts, divorces, environmental issues, and criminal offenses will be explored. Emphasis will be on development of those skills necessary to recognize and better deal with common legal problems to be confronted throughout adult life. Three class hours. Course offered Fall and Spring.

LAW 110 Great Trials 3 Credits
An in-depth and comprehensive examination of one or two significant local “landmark” cases, from investigation through appeal. Course is designed to allow the distillation of legal principles by working with actual trial records, appellate briefs, and newspaper reports. When practical, actual participants in the trial and appeal (judge, lawyers, newspaper reporters, and others) will be asked to share their unique perspectives with the class. Students will be required to complete an interpretative essay on issues in the case. This course fulfills the MCC requirement for a social science elective. Three class hours. Course offered Spring only.

LAW 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

LDS - Leadership

LDS 101 A Seminar in Leadership Development 3 Credits
A study to develop a basic understanding of leadership with special emphasis upon: styles and approaches toward leadership, motivational factors, communication skills, decision-making processes, characteristics of groups and group techniques, and the methodology and significance of goal-setting. Three class hours. Course offered Fall and Spring.

LDS 102 Leadership and Diversity 3 Credits
This course will examine how diversity affects groups, organizations, coalitions, and societies, and the methodology and significance of goal-setting. The course approaches diversity in a new way, treating diversity as a feature of individuals as well as groups of individuals. Three class hours. Course offered Fall and Spring.

LDS 103 Organizational Leadership 3 Credits
An introduction to the concepts, theories and ideas guiding leadership activities at work. This course will introduce a wide array of theories on topics relevant to understanding and controlling employee and managerial behavior, and provide insight and hands-on experience on how to use this knowledge to address leadership problems that you will face in organizations. Three class hours. Course offered Fall and Spring.

LDS 202 Leadership and Decision Making 3 Credits
This course provides a foundation in organizational dynamics and decision making. It emphasizes the main theories, models and approaches related to topics such as group processes and dynamics, rational and non-rational models of problem solving; group composition, cooperation in conflict; the organizational dynamics of diversity; formal and informal models of leadership; organizational culture; and organizational learning and development. Three class hours. Course offered Fall and Spring.

LDS 204 Leadership in the Local and Global Community 3 Credits
This course is intended to develop a greater awareness of and sensitivity to the importance of ethical components of managerial decision making. It is designed to provide students with conceptual tools and frameworks useful for analyzing business decisions, practices and policies in terms of their legal, ethical and public policy dimensions. This course will also prepare future leaders to meet their social obligations, function within organizational realities, and manage the complex interrelationships with other groups and institutions. Three class hours. Course offered Fall and Spring.

MAR - Marketing

MAR 200 Principles of Marketing 3 Credits
This course examines the business function of Marketing. Students will learn how marketers deliver value in satisfying customer needs and wants, determine which target markets the organization can best serve, and decide upon appropriate products, services, and programs to serve these markets. Topics include branding and product development, pricing strategies, marketing research, promotion, supply chain management and service marketing. Marketing metrics will be used throughout the course to assess the impact of marketing strategies. Three class hours. Course offered Fall and Spring.

MAR 201 Dynamics of Selling 3 Credits
Factors involved in effective selling; methods of conducting the sales presentation; application of psychological and persuasive selling techniques. Three class hours. Course offered Fall and Spring.

MAR 203 Sports and Entertainment Marketing 3 Credits
An in-depth look at the market-driven entertainment and sports industries. This course examines the dynamics of marketing various forms of entertainment including product tie-ins, cross promotions, the branding of persons, events and venues, entertainment marketing research, reputation management, the underlying economic factors, and marketing communication strategy. The course will examine marketing strategies based on changing public tastes, expanding channels of distribution, the role of new technology, as well as business venture trends. We will also look at legal issues and other challenges facing the marketing of sports and entertainment products. The course utilizes a combination of lecture, discussion, and project-based learning. Short, current case studies from key areas will be discussed. We will combine theoretical marketing models with practical examples. Three class hours. Course offered Fall and Spring.

MAR 204 Advertising 3 Credits
Effective use of advertising media, integration of promotion plans and sales techniques with advertising. This course will be offered in the Fall Semester during the evening and in the Spring Semester during the day. Three class hours. Course offered Fall and Spring.

MET - Mechanical Technology

MET 100 Mechanical Principles 3 Credits
Familiarizes the student with basic mechanical concepts. The lecture presents the principles which are applied and practiced in the laboratory. Laboratory experiences include blueprint reading, sketching, visualization and hand tool skills. The sketching assignments directly relate to the hand tools laboratory projects. The hand tools projects include mechanical fabrication and dissection of some common machines. One and one-half class hours, three laboratory hours. Course offered Fall and Spring.
MET 101 Technical Graphics 3 Credits
A course which combines the basic skills needed to communicate ideas in a graphical format with the understanding and use of a 2D and 3D CAD program (AutoCAD). The student will be able to generate 3 view drawings and pictorial sketches. The student will also be able to interpret and understand fully dimensioned drawings and create their own drawings using AutoCAD software. Understanding of the basic principles of 2D and 3D CAD will be reinforced to allow the student to quickly learn additional software packages in the future. Two class hours, two laboratory hours. Course offered Fall and Spring. Prerequisite: Some experience with mechanical drawing is desirable, since most students in this course have had one or more terms of drawing.

MET 103 Manufacturing Processes I 2 Credits
Operation of lathes, milling machines, drill presses, grinders, measurement and measuring instruments, utilization and capabilities of these devices in manufacturing processes. One class hour, three laboratory hours. Course offered Fall only.

MET 104 Manufacturing Processes II 2 Credits
A continuation of MET 103. Fabrication, manufacturing processes, field trips to local industries for observation of special machines, devices, and processes. One class hour, three laboratory hours. Course offered Spring only.

MET 105 Machine Design Theory I
See MET 225. Course offered Fall and Spring.

MET 106 Machine Design Theory II
See MET 226. Course offered Fall and Spring.

MET 107 Mechanical Systems 3 Credits
This course is a study of basic mechanical components. The course will span the basic functions and physical properties of mechanical components and the roles they play in the system. Students will gain knowledge and experience with materials, lubrication requirements and surface properties. Additionally, troubleshooting techniques will be introduced for identifying and resolving mechanical faults. Preventative maintenance methods and mechanical component safety will be emphasized. Technical documentation such as data sheets and specifications of mechanical elements will also be covered. Two class hours, two laboratory hours. Course offered Fall and Spring.

MET 108 Hydraulics and Pneumatics 3 Credits
This course is a study of fluid power technology using fluids or compressed air as the transfer media. Complete hydraulic and pneumatic systems are studied including power sources, reservoirs, pumps, compressors, lines, valves and actuators. Students will learn troubleshooting strategies to identify, localize and correct malfunctions. Preventative maintenance and safety issues will also be discussed. Two class hours, two laboratory hours. Course offered Fall and Spring.

MET 121 Computer Aided Drafting/Design - Solid Modeling 3 Credits
An introductory course in Solid Modeling using SolidWorks software. Through a combination of lecture and hands-on laboratory experiences, the student will learn the basics of solid modeling design. Projects will focus on the importance of design intent and geometric relations to maximize the efficiency of the design process. Two class hours, two laboratory hours. Course offered Fall and Spring. Prerequisite: MET 101 or MET 111 or CIT 111 or permission from Department.

MET 122 Advanced Solid Modeling using SolidWorks 3 Credits
An advanced course in solid modeling techniques for both part and assembly design using SolidWorks software. The student will learn to design using multiple solid bodies and surfacing through lecture and hands-on experience. Other topics covered include Animations, Sweeps, Loft, Molding and Weldments. The student will also have an opportunity to create a prototype using a 3D printer. Two class hours, two laboratory hours. Course offered Spring only. Prerequisite: MET 121 or ENR 153 or permission from Department.

MET 123 Motion Analysis 3 Credits
This is the second of a two-course sequence in Machine Design Theory. This course studies the practical use of advanced strength of materials principles, allowing the student to interpret the failure mechanisms necessary for optimized machine element design. Computer based tools are used to create analytical tools. Three class hours. Course offered Fall and Spring. Pre-requisites: MTH 104 or 135 and MET 101 or ENR 151 or higher (or previously completed).

MET 201 Designing for Materials, Manufacturing and Assembly 3 Credits
The student will become competent in material selection and design optimization techniques necessary for today's manufacturing and assembly processes. Students will rate their own designs against manual and high speed robotic assembly techniques using state-of-the-art software tools. Student prototypes are created using design geometry and selected materials matched to the appropriate manufacturing processes such as Injection Molding, CNC Machining, Casting and Forging. Two class hours, two laboratory hours. Course offered Spring only. Prerequisites: MTH 104 or 135 and MET 101 or ENR 153

MET 202 Functional Design, Drafting, and Analysis 3 Credits
The student learns to apply Computer Aided Design tools to analyze the functional parameters of parts and assemblies. Student teams are required to design and analyze assemblies in a hands-on project based learning environment. Course modules include kinematic and motion analysis, tolerance analysis and functional loading analysis of parts and assemblies. Two class hours, two laboratory hours. Course offered Spring only. Prerequisite: MET 101, ENR 153

MET 203 Technical Mechanics, Statics 3 Credits
This course engages the student in the study of the Vector Mechanics of Mechanical Systems in Static Equilibrium. The student will study Force Systems, Constraint Mechanisms, Basic Beam Theory and Structures including: Trusses, Frames and Machines. The course prepares the student in the basic development of equations and systems of equations necessary for the solution to engineering problems needed for future study. Three class hours. Course offered Fall and Spring. Pre-requisites: MTH 140 with a grade of C or better OR MTH 185 with a grade of C or better; Co-requisite: PHY 131 or higher (or previously completed).

MET 206 Engineering Materials 3 Credits
This course introduces the student to the nature of materials used in the design and manufacture of products and machinery. Ferrous, non-ferrous, polymers, ceramics, composites, and naturally occurring materials are all covered in this course. The emphasis is on material selection, production, and formation into final product. A companion lab gives the student the ability to get hands-on experience in understanding the structure, testing, and selection of materials. Two class hours, three laboratory hours. Course offered Fall and Spring.

MET 208 Technical Mechanics, Dynamics 3 Credits
Students will study classical vector mechanics dealing with the laws of motion. The course covers kinematics, the study of motion without reference to cause, and kinetics, the study of motion as a result of applied forces and moments. Three class hours. Course offered Fall and Spring. Pre-requisites: MTH 140 with a grade of C or better.

MET 225 Machine Design Theory I 3 Credits
This is a course which studies the practical use of advanced strength of materials principles, allowing the student to interpret the failure mechanisms necessary for optimized machine element design. Computer based tools are used to create analytical tools. Three class hours. Course offered Fall only. Prerequisite: MET 203 with a grade of C or better.

MET 226 Machine Design Theory II 3 Credits
This is the second of a two-course sequence in Machine Design Theory. It is an advanced course in which mathematical analysis, industry best practices, and system interpretation are used for the effective design of machine elements such as bearings, springs, gears, cams and mechanisms. Computer based tools are applied to create flexible design and analytical tools. Three class hours. Course offered Spring only. Prerequisite: MET 225 with a grade of C or better.
MTH 096 Algebra for Statistics 3 Credits
A basic algebra course designed to prepare students for MTH 160 (Statistics I) or MTH 162 (Statistics for the Social Sciences) at MCC. It is only for students who need MTH 160, MTH 161 or MTH 162 as the terminal mathematics course in their program and place at Mathematics Level 4, 5, or 6. It is not for students who need to take MTH 104 or MTH 165 (or higher). Topics include, but are not limited to, arithmetic operations on real numbers, solving linear equations and inequalities, simplifying expressions containing integer exponents, simplifying square roots and finding decimal approximations, graphing linear equations, an introduction to function notation, and appropriate applications of these topics. Three class hours per week; three fee hours; three imputed credits; no earned credits. Course offered Fall and Spring.

MTH 130 Modern Business Mathematics 3 Credits
This course will cover the basic concepts and processes of mathematics applied to various business situations including statistical procedures, percentage and percent distributions of financial statement data, merchandising, payrolls, taxation and insurance. Other topics include simple interest, compound interest and annuities. Three class hours. MTH 130 is a course for career business. It does not fulfill a mathematics requirement for most Associate in Arts or Associate in Science degrees. Course offered Fall and Spring.

MTH 140 Technical Mathematics I** 3 Credits
A course dealing with the development of algebraic and trigonometric concepts needed to solve problems in various technical areas. It includes a study of linear and trigonometric equations, dimensional analysis, ratios and proportion, functions and their graphs, right triangle trigonometry, graphs of trigonometric functions, vectors, and statistical topics. Three class hours. NOTE: A specific calculator will be required of all students in this course. Course offered Fall and Spring.

MTH 104 Intermediate Algebra* 4 Credits
A second course in algebra with an emphasis on quadratic and rational equations and their applications, and a brief introduction to right triangle trigonometry. Topics include, but are not limited to: solving equations involving quadratic, rational and radical expressions; performing arithmetic operations on rational expressions, complex numbers and radical expressions; evaluating functions and determining domain and range; graphing quadratic functions; solving systems of non-linear equations; simplifying expressions involving rational exponents; solving right triangle trigonometric problems; and appropriate applications of each of these topics. Four class hours. Course offered Fall and Spring.

*MTH 098, MTH 099, and MTH 104 are developmental courses. They do not fulfill a mathematics requirement for an Associate in Arts or Associate in Science degree.

MTH 135 Introduction to Technical Mathematics** 4 Credits
An introductory course dealing with the development of algebraic and trigonometric concepts needed to solve problems in various technical areas. Topics include measurement and approximation, ratio and proportion, dimensional analysis, intermediate algebra, geometry, and right triangle trigonometry. Four class hours. NOTE: A specific calculator will be required of all students in this course. Course offered Fall and Spring.

*MTH 135, MTH 140 and/or MTH 141 are required in various technology programs. They do not fulfill a mathematics requirement for an Associate in Arts or Associate in Science degree.
**MTH 135, MTH 140 and/or MTH 141 are required in various technology programs. They do not fulfill a mathematics requirement for an Associate in Arts or Associate in Science degree.**

**MTH 141  Technical Mathematics II**

A continuation of the concepts developed in MTH 140. Topics include complex numbers, higher degree equations, oblique triangle trigonometry, exponential equations, logarithms, systems of linear and quadratic equations, and inequalities. Three class hours. NOTE: A specific calculator will be required of all students in this course. (SUNY-M) Course offered Fall and Spring only. Prerequisite: MTH 140 with a grade of C or better or equivalent.

**MTH 135, MTH 140 and/or MTH 141 are required in various technology programs. They do not fulfill a mathematics requirement for an Associate in Arts or Associate in Science degree.**

**MTH 156  Mathematics for Elementary Teachers II**

A continuation of the concepts of MTH 155, which develop the mathematical competency of the teacher or prospective teacher at the elementary level. Students will develop a comprehensive understanding of the mathematical curriculum recommended by the National Council of Teachers of Mathematics (NCTM) Standards using a problem solving approach with appropriate technology. Topics include functions, probability, statistics, measurement, 2 and 3 dimensional geometry, transformational geometry, congruence and similarity. All sections are writing intensive (WR). Three class hours. MTH 156 is a special interest course; check for availability. (SUNY-M) Course offered Fall and Spring.

Prerequisite: MTH 155 with a grade of C or better.

**MTH 160  Statistics I**

An introduction to descriptive and inferential statistics intended to give an understanding of statistical techniques and applications in a wide variety of disciplines. Topics include measures of central tendency; dispersion and position; correlation and regression; probability and probability distributions, including binomial and normal; the Central Limit Theorem; parameter estimation and hypothesis testing. Minitab statistical software is used. Three class hours. MTH 160 is an appropriate elective for most programs. (SUNY-M) Course offered Fall and Spring.

Prerequisite(s): MTH 096 with a grade of B- or better, or MTH 104 with a grade of C or better.

**MTH 161  Statistics II**

Statistical inference with an introduction to experimental design. Topics include hypothesis testing and estimation for means, proportions and variances; sample size determination; uses of Chi-square distribution; analysis of variance; linear correlation and regression, non-parametric statistics and statistical research. Minitab statistical software is used. Three class hours. (SUNY-M) Course offered Fall and Spring.

Prerequisite: MTH 160 with a grade of C or better.

**MTH 162  Statistics for the Social Sciences**

An introduction to descriptive and inferential statistics intended to give an understanding of statistical techniques and applications used in the social sciences. Topics include: measures of central tendency, dispersion and position; correlation and regression; probability and probability distributions, including binomial and normal; parameter estimation and hypothesis testing; two-sample analysis; chi-square test of independence; one-way analysis of variance. Statistical software will be used. This course is intended for, but not limited to Social Science majors. Students who have completed MTH 160 or MTH 161 may not receive additional credit for this course. Four class hours. (SUNY-M) Course offered Fall and Spring.

Prerequisite(s): MTH 096 with a grade of B- or better, or MTH 104 with a grade of C or better, or MCC Level 8 Mathematics Placement.

**MTH 164  Introduction to Trigonometry**

A first course in trigonometry. Topics include the trigonometric ratios, radian measure, angles in a coordinate system, ratio values for any angle, graphs of trigonometric functions and basic trigonometric identities and equations. A specific calculator will be required of all students in this course. One class hour. Course offered Fall and Spring.

Prerequisite: MTH 104 with a grade of C or better, or MCC Level 8 Mathematics Placement.

**MTH 165  College Algebra**

This course is intended to enhance algebraic skills and graphing techniques, and to prepare students for Precalculus Mathematics and Applied Calculus. Topics include functions that are quadratic, polynomial, piecewise, exponential and logarithmic; equations that are quadratic in form, involve radicals, absolute value, variation and rational exponents; inequalities that are quadratic, rational, and absolute value. Three class hours. (SUNY-M). MTH 165 is an appropriate elective even if not pursuing science or mathematics. Course offered Fall and Spring.

Prerequisite: MTH 104 with a grade of C or better, or MTH 140 with a grade of C or better, MCC Level 8 Mathematics placement.

**MTH 172  Technical Discrete Mathematics**

An introduction to discrete mathematics primarily intended for students majoring in Information Technology or Computer Systems Technology. The emphasis will be on the development of technical discrete mathematics skills, rather than rigorous proof. Topics will include number systems, sets, logic, induction, elementary counting techniques, relations, functions, matrices, and Boolean algebra. Note: This course is not designed for students intending to major in Mathematics or Computer Science. Students intending to major in Mathematics or Computer Science should take MTH 220. Three class hours. Course offered Fall and Spring.

Prerequisite: MTH 141 or MTH 165 with a grade of C or better, or MCC Level 9 Mathematics placement, or equivalent.

**MTH 175  Precalculus Mathematics**

A study of the properties and graphs of functions, including polynomial, absolute value, power, piecewise, radical, rational, exponential, logarithmic, trigonometric, and inverse trigonometric. Topics also include a study of analytic trigonometry and an introduction to vectors. This course is intended to prepare students for the study of calculus. Four class hours. (SUNY-M) Course offered Fall and Spring.

Prerequisite: MTH 165 with a grade of C or higher, or MTH 141 with a grade of C or higher, or MCC Level 9 Mathematics placement or higher.
MTH 200  Applied Calculus  4 Credits
An intuitive introduction to the principal ideas of differential and integral calculus. Among the topics covered are: functions (including exponential and logarithmic), limits, differentiation, and integration. Emphasis will be placed upon the use of calculus in solving problems from areas including business, economics, and the social and natural sciences. Four class hours. (SUNY-M) Course offered Fall and Spring.
Prerequisite: MTH 165 with grade of C or better, or MCC Level 9 Mathematics placement, or equivalent.

MTH 210  Calculus I  4 Credits
This course will cover the basic concepts of differentiation of algebraic, trigonometric, exponential, logarithmic and inverse trigonometric functions. It includes an introduction to the concepts of limit, continuity and definite integral. Applications to rectilinear motion, graphing, maxima-minima, related rates, and area are explored. A specific calculator will be required of all students in this course. Students are advised to check with the Mathematics Department. Four class hours. (SUNY-M) Course offered Fall and Spring.
Prerequisite: MTH 175 with grade of C or higher, or high school precalculus course with a grade of B (83) or higher, or MCC Level 10 Mathematics placement or higher.

MTH 211  Calculus II  4 Credits
In this course, Riemann sums leading to definite integrals are used in applications to problems in physics and geometry. Also included are: techniques of integration, improper integrals, indeterminate limit forms, infinite series, Taylor polynomials, power series, and an introduction to first-order separable differential equations and their slope fields. A specific calculator will be required of all students in this course. Students are advised to check with the Mathematics Department. Four class hours. (SUNY-M) Course offered Fall and Spring.
Prerequisite: MTH 210 with a grade of C or higher.

MTH 212  Calculus III  4 Credits
The calculus of functions of more than one variable, partial differentiation, multiple integrals, polar coordinates, solid analytic geometry and vectors, and the calculus of vector-valued functions are covered. A specific calculator will be required of all students in this course. Students are advised to check with the Mathematics Department. Four class hours. (SUNY-M) Course offered Fall and Spring.
Prerequisite: MTH 211 with a grade of C or higher.

MTH 220  Discrete Mathematics  3 Credits
An introduction to discrete mathematics primarily intended for students majoring in Mathematics or Computer Science. Topics will include propositional and predicate logic, elementary number theory, mathematical induction, set theory, combinatorics, functions, and relations. Methods of proof will be developed in a variety of mathematical contexts. Three class hours. Course offered Fall and Spring.
Prerequisite: MTH 210 with a grade of C or higher, or equivalent.

MTH 225  Differential Equations  4 Credits
An introduction to ordinary differential equations and their applications. Analytical methods include: separation of variables, linear first order equations, substitution methods, second order linear equations with constant coefficients, undetermined coefficients, variation of parameters, autonomous systems of two first order equations, series solutions about ordinary points, and the Laplace Transform. In addition to analytical methods, quantitative and qualitative analysis will be employed through the use of Euler’s Method, phase lines, phase planes, and slope fields. Four class hours. Course offered Fall and Spring.
Prerequisite: MTH 211 with a grade of C or better.

MTH 230  Linear Algebra  4 Credits
Topics include systems of linear equations, vectors and matrices, determinants, vector spaces, linear transformations, eigenvectors and eigenvalues, and inner product spaces. Four class hours. Course offered Fall, Spring, and Summer.
Prerequisite: MTH 212 with a grade of C or better, or permission of instructor.

MTH 290  Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

MUS 102  Basic Musicianship Skills II  4 Credits
This course is a continuation of the ear training, sight-reading, and music theory, creativity, and improvisation skills taught in Basic Musicianship Skills I. It will focus on choral arrangements of patriotic, popular music genres of the past 150 years. The student will also learn the rudiments of vocal performance in conjunction with a female ensemble. May be repeated for additional credit. Three class hours. Course offered Fall only.

MUS 103  Basic Musicianship Skills II  3 Credits
This course offers further instruction after Basic Musicianship Skills I on the four basic skills of music: music theory, aural skills, piano skills, and solo performance in voice or another instrument. This course is open to both music majors and non-majors. One class hour, two lab hours. Course offered Fall and Spring.

MUS 104  Men's Glee Club  1 Credit
The Men's Glee Club is a performance organization which will focus on choral arrangements of patriotic and popular music genres of the past 150 years. The student will learn to transfer musical concepts between genres of music. The student will also learn the rudiments of vocal performance in conjunction with a male ensemble. May be repeated for additional credit. Three class hours. Course offered Spring only.

MUS 105  Women's Glee Club  1 Credit
The Women's Glee Club is a performance organization which will focus on choral arrangements of patriotic, contemporary choral works, and popular music genres of the past 100 years. The student will learn to transfer musical concepts between genres of music. The student will also learn the rudiments of vocal performance in conjunction with a female ensemble. May be repeated for additional credit. Three class hours. Course offered Fall only.

MUS 108  College Chorus  1 Credit
Performance of a wide variety of choral music. Musical selections range from traditional to contemporary and include such diverse styles as madrigals, songs, choralies, folk music, jazz and rock. Three class hours. (May be repeated for additional credit.) (SUNY-A) Course offered Fall and Spring.

MUS 109  Music Theory I  4 Credits
Instruction in music theory, ear-training, and sight-singing based on the techniques of the Common Practice Period. Activities include: sight-singing of diatonic melodies, melodic, harmonic and rhythmic dictation, study of intervals, scales, triads, the dominant seventh chord and non-harmonic tones in analysis, and the connection of triads in four-voice writing. Computer software is incorporated to reinforce music theory concepts and for ear training practice. Four class hours. (SUNY-A) Course offered Fall only.

MUS 110  Music Theory II  4 Credits
This course is a continuation of the ear training, sight singing and written materials of MUSIC 109 in greater depth and detail. Instruction is based on the techniques of the Common Practice Period. Principles of harmonic progression, diatonic common chord modulation, non-harmonic tones, the Classic Period, developmental techniques and small homophonic forms. Computer software is incorporated to reinforce music theory concepts, for ear training practice, and to typeset homework assignments. Four class hours. Course offered Spring only.

MUS 113  Song Writing  3 Credits
The study of successful song forms and creative imitation of student's own experience into original parodies and songs. Three class hours. (SUNY-A) Course offered Fall and Spring.
MUS 114 Contemporary A Cappella Ensemble 3 Credits
Performance of the genre of contemporary a cappella music. Musical selections will range from a variety of contemporary popular genres such as Rhythm and Blues, Rock, Alternative, Soul, Fusion, and Hip Hop. Three class hours (May be repeated for additional credit.) Course offered Fall and Spring.

MUS 115 Community Chorus 1 Credit
Performance of extended choral works from a variety of time periods. Examples of extended works include Requiems, Masses, Oratorios, and multi-movement choral works. This course will consist of a collaboration between students and community members. (May be repeated for additional credit.) Three class hours. Course offered Fall and Spring.

MUS 118 Broadway Musicals 3 Credits
A survey of musicals, revues and Broadway shows which represent the growth and development of American musical theatre as an art form. Students will learn to recognize and identify the characters, plot, best-known show tunes and other important facets of musical theatre. Three class hours. Course offered Spring only.

MUS 119 Music in World Cultures 3 Credits
A diverse overview of classical, popular, and folk music traditions comprising all of the major world cultures. The objectives of the course are to look closely at how we define what music is and what social and cultural roles it serves in our lives. Students will listen to music from other cultures and discuss how the music reflects differences in the way that another society defines music and its role in their lives. This process will also show how diverse and global our own musical traditions already are. The course will also explore the role of music as ritual, mode of communication, work accompaniment and artistic expression. Three class hours, two experiential hours. This course fulfills the MCC requirement for a social science elective. (SUNY-A/H) Course offered Fall and Spring.

MUS 120 Jazz in American Society 3 Credits
A survey course in the evolution of jazz in America. Historical significances are identified and traced from rhythmic worksongs and spirituals of the late 1800s through avant-garde jazz of the 1970s. Specific concentration as to personalities and musical styles occurs for the major eras and trends in jazz; e.g., Ragtime, Dixieland, Swing, Bebop, Progressive, Modern, Third Stream, Rock, Jazz. This course fulfills the MCC requirement for a social science elective. Three class hours. Course offered Fall only.

MUS 121 Voice Class 3 Credits
Group instruction in the mastery of vocal techniques, the study of common vocal problems, the development of basic musicianship and the cultivation of expressive singing ability. Students will perform songs covering a wide variety of moods, styles, and textual subjects. Three class hours. Course offered Fall and Spring.

MUS 122 Piano Class I 3 Credits
Group instruction in fundamental piano technique designed for the beginner. Pupils learn to read music, improvise chordal accompaniments, and develop technical proficiency through performance of elementary piano music. Two class hours, one laboratory hour. (SUNY-A) Course offered Fall and Spring.

MUS 123 Piano Class II 3 Credits
A continuation of MUS 122. Group instruction designed to develop piano proficiency at the advanced beginner level. Includes further development of technical and music reading skills including improvisation. Two class hours, one laboratory hour. Course offered Fall and Spring.
Prerequisite: MUS 122 or performance equivalent to MUS 122, or permission of instructor.

MUS 124 Guitar Class I 3 Credits
An introductory course in the fundamentals of guitar playing, designed for the beginning student. A dual approach to the instrument will be taught: 1) as an accompaniment for singing; the student will learn chords, progressions, strums, and finger-picking; 2) as a solo instrument; the student will learn the fundamentals of reading music, as applied to the guitar, e.g. staff-notation, meters, rhythms, scales, positions with emphasis on developing dexterity. Three class hours.
Students must provide their own guitars. (SUNY-A) Course offered Fall and Spring.
Prerequisite: MUS 122 or permission of the instructor.

MUS 125 Guitar Class II 3 Credits
An intermediate course in guitar playing designed for the student with more than an elementary knowledge of guitar technique. Emphasis on the guitar as a solo instrument - including scales in all positions, technical reading studies, solo playing, with emphasis on the development of right hand dexterity. Three class hours.
Students must provide their own guitars. Course offered Spring only.
Prerequisite: MUS 124 or permission of the instructor.

MUS 126 Applied Piano Minor I 1 Credit
A practical course in piano skills (scales, arpeggios, improvisation and accompanying) designed for students currently studying a major applied instrument or major vocal applied. Students should possess skills in music theory and be able to read music. One and one-half laboratory hours. (SUNY-A) Course offered Fall only.
Prerequisite: Permission of instructor.

MUS 127 Applied Piano Minor II 1 Credit
A continuation of MUS 126 for students currently studying voice or an instrument. One and one-half laboratory hours. Course offered Spring only.
Prerequisite: MUS 126 or equivalent, or permission of instructor.

MUS 129 MIDI Recording Techniques 3 Credits
An introductory course in computer-assisted music production. Students will learn the fundamentals of the Musical Instrument Digital Interface (MIDI) as they pertain to MCC’s own MIDI studio. Using the synthesizer, drum machine and tone generator, students will produce high quality demo tapes of the music of their choice. Three class hours. (SUNY-A) Course offered Fall and Spring.
Prerequisite: Basic keyboard proficiency or permission of instructor.

MUS 131 Studio Production 3 Credits
Designed to give the students practical experience in recording live music using digital multi-track recorders. The students will understand the use of microphones, mixers, multi-effects units and MIDI (Musical Instruments Digitally Interfaced) applications. Students will be given an overview of how past, present and future technological changes in the music industry impact recording techniques. Three class hours. Course offered Fall and Spring.
Prerequisite: MUS 129 is strongly recommended.

MUS 132 Percussion Class 3 Credits
Group instruction in basic percussion techniques. Includes learning the rudiments (rolls, flams, ruffs, paradiddles, etc.) of reading drum music. Two, three, and four part ensemble experience in various styles. Developing four-limb coordination for drum-set playing and learning basic rock, Latin, and jazz rhythms on the set. Correct playing techniques for some of the secondary percussion instruments: hand cymbals, bass drum, triangle, tambourine, maracas, claves, cowbells, guiro, cabasa, and conga. Three class hours. Course offered Fall and Spring.

MUS 133 Lyric Writing 3 Credits
This course will improve the student’s ability to write words to music. Students will enhance their skills not by reading about lyric writing but by completing dozens of writing exercises and assignments. The results will be lyrics that are clear, concise and creative. Besides the usual topics of meter, rhyme and form, students will learn topics not widely known outside of songwriting circles. These topics include how to start writing a lyric quickly, how to write more effective lyrics by examining the words within the title, pulse points, how to develop a song one line at a time, finding the lyrical approach, blocking a song, the importance of contrast along with other tricks, tips and techniques used by professional writers. Discussions will include work habits, breaking writers block and career opportunities. The ability to read and write music is helpful but not necessary. This course will focus on the written word. Three class hours. Course offered Fall and Spring.
Prerequisite: ENG 101 or permission of the instructor.
MUS 140  Jazz Ensemble  1 Credit
Rehearsal and performance of jazz, Latin, and pop instrumental, music for big band (piano, bass, drums, saxophones, trumpets, trombones, and guitar). Rehearsals include study of playing with good time, intonation, jazz inflections, articulations, and correct interpretation of classic jazz literature to modern styles. Concert performances include major concerts twice each semester in MCC’s Theatre, and there is the potential for additional on-campus or off-campus performances. (This course may be repeated for credit.) Three laboratory hours, 10+ experiential hours. Course offered Fall and Spring.  
Prerequisite: Prior experience in a jazz band or permission of instructor. Recommended corequisites: MUS 143/144 is highly recommended.

MUS 141  Madrigal Singers  1 Credit
A select group of singers rehearsing and performing vocal music from the Medieval and Renaissance time periods. Emphasis will be on developing musicianship and ensemble singing with the goal of understanding these musical styles and experiencing the joy of public performance. May be repeated for additional credit. Three class hours. Course offered Fall only.  
Prerequisite: Audition or permission of instructor.

MUS 142  Musical Production  3 Credits
A select group of actors/singers and musicians whose main goal is to rehearse and perform a Broadway musical production. Students will learn the vocal and dance portion of performing in a full scale musical production. Students will experience costumed and staged live performances. May be repeated for additional credit. Three class hours. Course offered Fall only.  
Prerequisite: Audition or permission of instructor.

MUS 143  Jazz Improvisation I  3 Credits
An introductory level course that explores the theory of jazz. This class will use standard jazz tunes as vehicles to explore harmony, melody, rhythm, improvisational concepts, basic keyboarding skills, and composition in a functional way. Modes of the major scale, ii-V-I’s, and the blues scale will be discussed as well as major, minor, and diminished chord structures with sevenths. Theory discussions and written assignments will be combined with ear training, listening examples, and playing standards in class so as to increase the student’s ability to improvise in an instrumental jazz group. Three class hours. Course offered Fall and Spring.  
Prerequisite: MUS 109 or permission of instructor.

MUS 144  Jazz Improvisation II  3 Credits
A continuation of MUS 143 that examines the theory of jazz. This class will use standard jazz tunes as vehicles to explore harmony, melody, rhythm, improvisational concepts, basic keyboarding skills, and composition in a functional way. In addition to modes of the major scale, ii-V-I’s, blues scale, and seventh chords being reviewed, extensions 9, 11, 13, modes of the melodic minor, and the diminished scale will be introduced. Theory discussions and transcription/composition assignments will be combined with ear training, listening examples, and playing standards in class so as to increase the student’s ability to improvise in an instrumental jazz group. Three class hours. Course offered Fall and Spring.  
Prerequisite: MUS 143 or permission of instructor.

MUS 145  Jazz Combo  1 Credit
Rehearsal and performance of traditional jazz standards, Latin, avant-garde and pop instrumental, music for small combo (piano, bass, drums, guitar, and some horns such as saxophone and trumpet.). Rehearsals include study of playing compositions with an emphasis on improvising in a small group format. Correct interpretation of classic jazz literature to modern styles is studied in this context of a small combo. Concert performances include major concerts twice each semester in MCC’s Theatre, Atrium, or Student Center and there is the potential for additional on-campus or off-campus performances. (This course may be repeated for credit.) Three laboratory hours, 10+ experiential hours. Course offered Fall and Spring.  
Prerequisite: Prior experience improvising in a jazz band or permission of instructor; corequisite: MUS 143/MUS 144 is highly recommended.

MUS 146  Vocal Jazz/Show Choir  1 Credit
A select group of singers and instrumentalists rehearsing and performing vocal music from the jazz and show choir repertoire. Emphasis will be on developing musicianship and ensemble singing with the goal of understanding these musical styles and experiencing the joy of public performance. May be repeated for additional credit. Three class hours. Course offered Spring only.  
Prerequisite: Audition or permission of instructor.

MUS 147  Jamming in Jazz, Funk, Pop and Rhythm and Blues Styles  1 Credit
This course practices how to solo effectively melodically and rhythmically on an instrument in several different styles such as Jazz, Funk, Pop and Rhythm & Blues using mostly one’s ear. Appropriate music theory will be studied. Ear training will also be accomplished by “call and response” drills and listening to various recordings of these music styles. Students should have some basic music theory knowledge and will be expected to perform on an instrument (including voice). Students will practice active listening to examples of recordings in class. The class will practice performing complex polyrhythms and hemiolas by clapping and singing. Students will transcribe short phrases by repeated listenings and apply these memorized or notated phrases to similar harmonic progression forms or vamps in other compositions. Performing together in a group setting will be discussed and practiced as well. One class hour. (SUNY-A) Course offered Spring only.  
Prerequisite: Student should have some knowledge of guitar playing.

MUS 150  History of Rock ‘n Roll  3 Credits
A survey course that traces the roots of rock ‘n roll from its origins in blues and rock ‘n roll to the present day styles. In addition to the musical styles, the course will also look at the cultural, economic and social influences that shaped this American musical pheonmena. This course fulfills the MCC requirement for a social science elective. Three class hours. Course offered Fall and Spring.

MUS 151  Music Performance and Lessons  2 Credits
Provides students with an opportunity to develop their music abilities through solo or ensemble performances before college audiences, through individualized private study of instrumental or vocal music under the supervision of qualified teachers, and a final exam jury before the music faculty. A minimum of 15 one-hour lessons is required per semester. Cost of lessons is not included in MCC tuition. One class hour plus one hour of private instruction. (May be repeated for additional credit.) (SUNY-A) Course offered Fall and Spring.  
Prerequisite: Music Department audition.

MUS 153  Electric Guitar and Electric Bass  3 Credits
A study of the many aspects of playing the electric guitar and/or the electric bass. Students will learn music theory, guitar symbols, melodies, scales, and arpeggios. Emphasis is on the practical application of music fundamentals when playing by ear, imitation of styles (jazz, pop, rock, folk), and solo group improvisation. Students supply their own instruments and/or equipment. Three class hours. (SUNY-A) Course offered Fall and Spring.  
Prerequisite: Student should have some knowledge of guitar playing.

MUS 154  Classical Guitar  3 Credits
A study of classical guitar techniques and music literature, with emphasis on the execution of dexterity, a thorough understanding of music fundamentals and the performance of a wide variety of classical solo and ensemble music. Students provide their own guitar. Three class hours. (SUNY-A) Course offered Spring only.  
Prerequisite: Student should have some knowledge of guitar playing.

MUS 155  African-American Music in America  3 Credits
A comprehensive survey into the musical idiom that comprises the African-American musical landscape. This course will discuss the important contributions that led to the development of the Negro spiritual, ragtime, blues, jazz, and the hip-hop cultural phenomenon. A historical study of the relationship that African-American music has had on western composers including Igor Stravinsky, Darius Milhaud, and Claude Debussy. This course fulfills the MCC requirement for a social science elective. Three class hours. Course offered Spring only.
MUS 159 Aural Skills I 1 Credit
This course reinforces Music Theory concepts and develops skills in sight singing as well as melodic and rhythmic dictation. One class hour. Course offered Fall only.
Corequisite: MUS 109 or permission of instructor

MUS 160 Aural Skills II 1 Credit
This course is a continuation of Aural Skills I. It reinforces Music Theory concepts and develops skills in sight singing as well as melodic and rhythmic dictation. One class hour. Course offered Spring only.
Prerequisite: MUS 159 or permission of instructor; corequisite: MUS 110 or permission of instructor

MUS 161 Guitar Ensemble 1 Credit
Rehearsal and performance of a wide variety of music literature composed and arranged for four or more guitars. Minimum requirements include reading and playing in first position, reading of basic rhythm pattern including eighth and sixteenth notes. (Course may be repeated for additional 1 credit.) Three class hours. Students must provide their own guitar. Course offered Fall and Spring.

MUS 190 Music Rehearsal and Performance 3 Credits
Rehearsal and performance of specialized musical groups for significant musical events; i.e., Broadway musicals, instrumental and vocal ensembles organized to perform music in a specific style. Forty-five to one hundred thirty-five class hours. This course can be repeated for additional credit. Course offered Fall only.

MUS 201 History of Music I 3 Credits
Music from antiquity through 1750, covering Medieval, Renaissance and Baroque style periods; essential score reading and listening to records outside of class. Three class hours. This course fulfills the MCC requirement of humanities or social science elective. (SUNY-WC) Course offered Fall only.
Prerequisites: Completion of a music theory course or music appreciation, and elementary skill in music reading or permission of the instructor.

MUS 202 History of Music II 3 Credits
Music from 1750 through the present covering Classical, Romantic and Twentieth Century style periods; essential score reading and listening to records outside of class. Three class hours. This course fulfills the MCC requirement for a humanities or social science elective. (SUNY-WC) Course offered Spring only.
Prerequisite: MUS 201 or permission of the instructor.

MUS 209 Music Theory III 4 Credits
A study of diatonic seventh chords, borrowed chords, secondary dominants, augmented sixth chords, chromatic and in harmonic modulation and musical forms of the Classic and Romantic Periods, sight-singing and harmonic and melodic dictation related to chromatic harmony, early 20th century techniques. Computer software is incorporated to reinforce music theory concepts, for ear training practice, and to typeset homework assignments. Four class hours. Course offered Fall only.
Prerequisite: MUS 110 or permission of the instructor.

MUS 210 Music Theory IV 4 Credits
Studies of 20th century techniques, with student compositions performed and evaluated in class. Computer software is incorporated to reinforce music theory concepts, for ear training practice, and to typeset homework assignments. Four class hours. Course offered Fall only.
Prerequisite: MUS 209 or permission of the instructor.

MUS 211 Voice Class II 3 Credits
Intermediate collegiate level study of vocal music with emphasis on developing diction, breath control, increasing vocal resonance, improving stage presence, and cultivating accuracy, artistry and musicianship. Students will study a wide variety of vocal materials; e.g., Elizabethan lute songs, classical and romantic art songs, as well as standards, “pop” styles, and Broadway show tunes. Three class hours. Course offered Fall and Spring.
Prerequisites: MUS 121, prior vocal experience, or by audition.

MUS 226 Applied Piano Minor III 1 Credit
A course designed to increase essential keyboard skills and score reading; improve technique through the study and performance of collegiate level intermediate difficulty piano studies; and provide instruction in proper methods of accompanying, melodic and harmonic improvisation, and transposition. One and one-half laboratory hours. Course offered Fall only.
Prerequisite: MUS 127 or equivalent, or permission of instructor.

MUS 227 Applied Piano Minor IV 1 Credit
A continuation of practical keyboard studies at the advanced intermediate (collegiate) level of study. Continued development of keyboard skills including SATB vocal score reading, harmonization, improvisation, transposition, and modulation. Instrumental score reading and instrumental accompaniment. One and one-half laboratory hours. Course offered Spring only.
Prerequisite: MUS 226 or equivalent, or permission of instructor.

MUS 253 Music Business 3 Credits
This course will introduce the student to the different facets of the music business. The course will aim to increase the participant’s knowledge of the inner workings of the business, as well as how they relate to one another. Areas of concentration are music publishing, income sources, recording studios, copyrights, recording companies, and other related avenues. Whether the student wants a career in teaching or performing, this course will give an overview of some of the things to expect. Three class hours. Course offered Spring only.

MUS 259 Aural Skills III 1 Credit
This course is a continuation of Aural Skills II. It reinforces Music Theory concepts and develops skills in sight singing as well as melodic and rhythmic dictation. One class hour. Course offered Fall only.
Prerequisite: MUS 161 or permission of instructor; corequisite: MUS 209 or permission of instructor

MUS 260 Aural Skills IV 1 Credit
This course is a continuation of Aural Skills III. It reinforces Music Theory concepts and develops skills in sight singing as well as melodic and rhythmic dictation. One class hour. Course offered Fall and Spring.
Prerequisite: MUS 259 or permission of instructor; corequisite: MUS 210 or permission of instructor

MUS 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall only.

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**NUR - Nursing**

**NUR 110 Foundations of Nursing** 1 Credit

NUR 110 is a nonclinical course in which the foundation of professional nursing is examined through exploration of the healthcare delivery system, nursing roles, nursing origins, and the educational, legal, and ethical bases of practice. Future challenges for the nursing profession are introduced. One class hour. Course offered Fall and Spring.

**NUR 111 Fundamentals of Nursing** 7 Credits

NUR 111 focuses on the Basic Needs of the non acute adult patient to provide quality, safe patient centered care for diverse populations. The MCC nursing program’s conceptual framework and the core competencies of Associate Degree Nursing practice: Professional Identity, Nursing Judgment, Human Flourishing, and Spirit of Inquiry, are introduced. Students use knowledge and science to begin to assess a patient’s ability to meet Basic Needs and to implement fundamental nursing interventions. Three class hours, two conference hours, six clinical laboratory hours. Course offered Fall and Spring.

**Prerequisites:** Grade of C or better in high school chemistry, biology and either Sequential Math, Math A Regents or High School Algebra or MTH 098; corequisites: NUR 110, PSY 101 and BIO 142 unless previously taken.

**NUR 112 Nursing Care of the Adult and Child-I** 8 Credits

NUR 112 focuses on Basic Needs of adult and child patients using the Nursing Process to provide quality, safe patient centered care for diverse populations. Teamwork and collaboration are introduced and explored. Students use knowledge and science to manage, with assistance, the essential issues of patients with both acute and chronic conditions in several healthcare environments. One class hour, four conference hours, nine clinical laboratory hours.

The core competencies of Associate Degree Nursing practice introduced in NUR 111 are expanded upon in NUR 112 and to implement fundamental nursing interventions. Three class hours, two conference hours, six clinical laboratory hours. Course offered Fall and Spring.

**Prerequisites:** NUR 110 and NUR 111 with a minimum grade of C.

**NUR 113** 1 Credit

Introduction to curriculum concepts with emphasis on the use of the nursing process as the student assesses the basic needs of clients. Selected nursing content from the core curriculum is discussed. Twelve class hours, nine laboratory hours. Cannot be used as an elective in the Nursing program. Course offered Fall and Spring.

**Prerequisites:** NUR 150 is required for students who are transferring into the program, admitted with advanced standing, or returning to the program after an absence of one year. Completion of NUR 150 requirement is valid for one year. Students reentering NUR 111 do not need to take NUR 150.

**NUR 114** 1 Credit

Critical Thinking Utilizing the Nursing Process

This one-credit elective course is designed to assist nursing students from any of the four semesters with developing improved critical thinking skills necessary for safe, efficient, and holistic care. The course is a late-start course meeting weeks 7-14 for two hours each week. A case study approach lends well to interactive class periods where nursing students will be able to develop, utilize, and receive valuable feedback regarding developing a unique, individual plan of care for patients using critical thinking skills. Group work, individual projects, and documentation are emphasized in the development of these critical thinking skills.

Course offered Fall and Spring.

**Prerequisites:** Current or prior matriculation in the Nursing program, or with permission of faculty.

**NUR 120 Issues in Nursing** 1 Credit

NUR 120 is a nonclinical course in which issues of professional nursing are critically examined through exploration of current themes including quality and safety initiatives, leadership and management practices, licensure and legal implications, employment matters and professional responsibility. One class hour. Course offered Fall and Spring.

**Prerequisites:** NUR 110 and NUR 112 with a minimum grade of C.

**NUR 121 Psychiatric-Mental Health Nursing (Seven Weeks)** 4 Credits

NUR 211 focuses on the Basic Needs of patients with psychiatric/mental health problems using the Nursing Process to provide quality, safe patient centered care for diverse populations through teamwork and collaboration. Students use knowledge and science to manage the issues of patients with acute and chronic psychiatric conditions in a variety of healthcare environments. Two class hours, three conference hours, nine clinical laboratory hours.

The core competencies of Associate Degree Nursing practice expanded upon in NUR 112 are applied to this patient population. Course offered Fall and Spring.

**Prerequisites:** NUR 112 with a minimum grade of C, BIO 143 with a minimum grade of C, PSY 212 and ENG 101; corequisites: NUR 210, BIO 202 and SOC 101, unless previously taken.

**NUR 122 Maternal - Neonatal Nursing - WR (Seven Weeks)** 4 Credits

NUR 212 focuses on the basic needs of maternal and neonatal patients, using the Nursing Process to provide quality, safe, patient centered care for diverse populations through teamwork and collaboration. Students use knowledge and science to manage maternal and neonatal considerations in the acute care setting. Two class hours, three conference hours, nine clinical laboratory hours.

The core competencies of Associate Degree Nursing practice expanded upon in NUR 112 are applied to this patient population. Course offered Fall and Spring.

**Prerequisites:** NUR 112 with a minimum grade of C.

**NUR 210 Nursing Care of the Adult and Child-II** 8 Credits

NUR 210 focuses on Basic Needs of adult and child patients using the Nursing Process to provide quality, safe patient centered care for diverse populations through teamwork and collaboration. Students use knowledge and science to manage the complex issues of patients with both acute and chronic conditions in a variety of healthcare environments. One class hour, four conference hours, nine clinical hours.

The core competencies of Associate Degree Nursing practice are integrated into clinical nursing practice.

Course offered Fall and Spring.

**Prerequisites:** SOC 101, BIO 202 with a minimum grade of C, NUR 210, 211, 212 with a minimum grade of C; corequisites: 6 credits general electives, 2 credits Physical/Health Education, unless previously completed.

**NUR 213** 1 Credit

Developing improved critical thinking skills necessary for safe, efficient, and holistic care. The course is a late-start course meeting weeks 7-14 for two hours each week. A case study approach lends well to interactive class periods where nursing students will be able to develop, utilize, and receive valuable feedback regarding developing a unique, individual plan of care for patients using critical thinking skills. Group work, individual projects, and documentation are emphasized in the development of these critical thinking skills.

Course offered Fall and Spring.

**Prerequisites:** Current or prior matriculation in the Nursing program, or with permission of faculty.

**NUR 214 Nursing Care of the Adult and Child-III** 8 Credits

NUR 214 focuses on Basic Needs of adult and child patients using the Nursing Process to provide quality, safe patient centered care for diverse populations through teamwork and collaboration. Students use knowledge and science to manage the complex issues of patients with both acute and chronic conditions in a variety of healthcare environments. One class hour, four conference hours, nine clinical hours.

The core competencies of Associate Degree Nursing practice are integrated into clinical nursing practice.

Course offered Fall and Spring.

**Prerequisites:** SOC 101, BIO 202 with a minimum grade of C, NUR 210, 211, 212 with a minimum grade of C; corequisites: 6 credits general electives, 2 credits Physical/Health Education, unless previously completed.

**NUR 290 Independent Study** Variable Credit

See the Department Chairperson. Course offered Fall and Spring.

**OFT - Office Technology**

**OFT 100 Keyboarding** 3 Credits

A course designed to learn touch keyboarding and to develop speed and accuracy. An introduction to the Windows environment and word processing using Microsoft Word for the creation of basic business documents. Open to all students. Recommended for those with no keyboarding experience or those who key less than 25 words per minute. Four class hours. Course offered Fall and Spring.

**OFT 101 Intermediate Word** 3 Credits

Development of formatting skills through Microsoft Word. Preparation of business documents including letters, memorandums, reports and tables, and an introduction to newsletters and electronic communication. Emphasis on proofreading, production, and mailability skills. Recommended for those who type more than 30 NWAM for five minutes within five errors. Students should have had a minimum of one semester of keyboarding instruction. Five class hours. Course offered Fall and Spring.

**OFT 102 Advanced Word I** 3 Credits

An intermediate course emphasizing enhanced formatting skills utilizing Microsoft Word. Production of mailable business documents with advanced features. Composition and creation of business correspondence will be infused throughout the course. Integrating decision making and problem solving skills are stressed. Continued emphasis on speed development and accuracy. Five class hours. Course offered Fall and Spring.

**Prerequisite:** OFT 110 or permission of instructor.
OFT 121  Introduction to Keyboarding  1 Credit
This course will cover alphabetic, numeric and symbol keys. Straight copy speed and accuracy rates are developed, as well as proofreading skills. No word processing skills are covered. No prior computer skills necessary. One class hour. Course offered Fall and Spring.

OFT 141  Professional Grammar and Communications  4 Credits
A presentation and review of grammar, including punctuation, capitalization, number styles, and sentence structure, for accurate business usage. A three-level learning approach is used to facilitate comprehension and to promote a mastery level of grammar by providing graduated learning segments. Students will apply grammar skills in the composition and formatting of business documents to include letters, memos, e-mail messages, and reports. Successful completion of TRS 105 or TRS 200 or placement at English 101 or higher. Four class hours. Course offered Fall and Spring. Completion of TRS 105 or TRS 200 or placement in ENG 101 or higher.

OFT 170  Spreadsheet Applications Excel  3 Credits
An intensive course covering Microsoft Excel. Objectives include preparing, formatting, and enhancing worksheets, applying formulas and functions, charting, using analysis, linking, workgroup features, and increase productivity through use of macros and templates. This course is designed to teach skill sets needed for the Microsoft Office Certification Exam. Knowledge of the personal computer, keyboard, and mouse is strongly recommended. Three class hours. Course offered Fall and Spring.

OFT 171  Microsoft Access Professional  3 Credits
An intensive course that covers Microsoft Access. Objectives include planning and designing databases; building and modifying tables, forms and reports; advanced manipulation of data; defining relationships; modification of report properties; subforms, switchboards, PivotTables, and importing/exporting data. This course is designed to cover skill sets needed for the Microsoft Office Certification Exam. Knowledge of the personal computer, keyboard, and mouse is strongly recommended. Three class hours. Course offered Fall and Spring.

OFT 173  Microsoft Multimedia Communications  3 Credits
This course will offer a thorough coverage of Microsoft PowerPoint, Microsoft Outlook, and Microsoft Publisher for the office professional. Microsoft PowerPoint instruction will cover animation, use of color and objects, and importing and exporting data and images. Activities include creating a slide show as well as delivering the presentation. Microsoft Publisher will focus on production, assembling, and the design of administrative publications. Topics will include designing page layout, creating graphics, using templates, manipulating text and graphics, using style sheets, scanning images, and adding special effects. Microsoft Outlook covers uses of communicating by e-mail, managing contacts, calendaring, address book, and schedule management. Knowledge of the personal computer, keyboard, and mouse is strongly recommended. Three class hours. Course offered Fall and Spring.

OFT 201  Advanced Word II  2 Credits
Advanced formatting skills of complex business documents utilizing Microsoft Word applications. Orientation to collaborative work concepts. Topics covered include graphics, complex mail merges, electronic forms, macros, and long document production utilizing master and subdocuments. Projects integrate decision-making, problem-solving, and language arts skills. Continued development of speed and accuracy. Three class hours. Course offered Fall and Spring. Prerequisite: OFT 112 with a grade of C- or better.

OFT 202  Office Simulations  2 Credits
This course covers office simulations and projects that draw from all aspects of Microsoft Office Professional software. Realistic workplace projects integrate business vocabulary, critical thinking strategies, and web-research skills into document processing. Two class hours. Course offered Spring only. Prerequisite/Corequisite: OFT 201, or permission of instructor.

OFT 214  Administrative Office Procedures  4 Credits
This course presents concepts and procedures used in today’s electronic office. It encompasses discussions on professional conduct and ethics, job readiness techniques, and small group collaboration. Other topics include the use of communication devices and equipment, use of electronic mail, records management, reprographics technology, administrative travel procedures, Internet research and reference procedures. Oral and written communication skills will be emphasized. Four class hours.

Course offered Fall and Spring. Prerequisites: OFT 112 and OFT 141.

OFT 240  Office Transcription  3 Credits
An introduction to and development of transcription skills from dictated material. A review of grammar and punctuation along with an emphasis on spelling and word study skills. An introduction to the mailable concept during transcription practice with the goal of mailable in testing situations. Three class hours. Course offered Fall and Spring. Prerequisites: OFT 111 with a grade of C- or better and OFT 141.

OFT 257  Legal Studies I  3 Credits
Designed to develop competency in legal terminology and transcription. Student will receive an in-depth study of legal terminology while developing the skills needed to accurately transcribe from dictated material. Emphasis will be on comprehension of terminology, language arts, proper formatting, and proof reading skills. Four class hours. Course offered Fall and Spring. Prerequisites: LAW 101

OFT 258  Legal Studies II  3 Credits
This course introduces students to the following topics: law office organization, file management, client interaction, document formatting, recordkeeping, legal research, court and legal documents, legal specializations, and the court system. Students will perform a variety of tasks to develop time management skills, evaluate work, and solve problems. Four class hours. Course offered Fall and Spring. Prerequisites: OFT 112 and OFT 141 or permission of instructor.

OFT 267  Medical Office Documentation  3 Credits
Students will use medical terminology and keyboarding skills in transcribing medical documents for major medical fields. Emphasis on accuracy, document formatting, grammar principles, production, and understanding of the responsibilities and competencies of the medical office support staff. Three class hours. Course offered Fall and Spring. Prerequisites: HIM 104 and OFT 111 and OFT 141.

OFT 268  Medical Office Procedures  3 Credits
The duties and responsibilities of a medical office will be covered, including proper telephone techniques, preparation of medical records, appointment books (paper and electronic), preparation of standard insurance forms, billing, maintenance of petty cash book, handling of incoming and outgoing mail, confidentiality and legal considerations, and office management. Computer simulation projects are included. Three class hours. Course offered Fall and Spring.

OFT 270  Office Technology Seminar and Work Practicum  2 Credits
This seminar course provides the student with a capstone experience to prepare for employment within the office technology field. The course will examine situations and problems related to the workplace. Students are required to attend a weekly one-hour seminar and complete a 45-hour office work experience with a cooperating employer. Course offered Spring only. Prerequisite(s): OFT 112, OFT 141. Co-requisite: OFT 214.
OPT 231 Lasers: Technology and Application 4 Credits
This course will stress laser applications in science and industry, including measurement, communication, machining, information recording and holography. The basic principles of laser operation, construction and technology will be discussed in such a way that the student will be able to suggest and implement new ideas, and understand old ones, concerning laser applications and holography. The laboratory will include the actual recording and processing of holograms and other laser experiments. Three class hours, three laboratory hours. Course offered Spring only.
Prerequisite: OPT 211 or permission of department.

OPT 235 Advanced Optical Manufacturing 4 Credits
A study of current processes, machinery and tools employing CNC technology that are shaping the methodology in manufacturing optical components. The course is designed to be very interactive, providing laboratory experience on the following subjects: CNC grinding and polishing, planetary grinding and polishing, tolerancing and metrology. Two class hours, four laboratory hours. Course offered Spring only.
Prerequisite: OPT 213 or permission of department.

OPT 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

PE 101 Co-ed Personal Fitness 2 Credits
A course designed to develop the student’s awareness of, and responsibility for, his/her own personal fitness. It is primarily a lecture class, but does include a comprehensive physical fitness screening component. The course material will provide the student with sound criteria for decision making with regard to their own physical fitness. Two class hours. Course offered Fall and Spring.
PEC - Physical Education -Coed

ONE CREDIT HOUR ACTIVITY COURSES. Please carefully check the master schedule for class meeting times for our one-credit courses. Classes vary from meeting once a week for two hours, twice a week for one hour, both for an entire semester, to twice a week for two hours for an eight-week period of time. Other variations will occur. PEW - Seats held primarily for women; however, either sex may take. PEM - Seats held primarily for men; however, either sex may take. PEC - TEAM SPORTS Softball, Volleyball, Soccer, Basketball, Floor Hockey, Touch Football. Courses cover basic skills, rules and strategies. Watch for each paired with a variety of other PE activity courses or as a single offering. (Pairings will vary from semester to semester.) PEC-INDIVIDUAL SPORTS Racquetball, Tennis, Badminton, Golf, Archery, Dance, Swimming, Canoeing, and Bowling (see fee courses). Courses cover basic skills, rules, and strategies where applicable. Watch for each paired with a variety of other PE activity courses or as a single offering. (Pairings will vary from semester to semester.) Course offered Fall and Spring.

PEC 100 Fitness Theory and Conditioning for the Professions 1-3 Credits

A course designed to meet the specific fitness needs for the professions, such as law enforcement/firefighter. It will provide general fitness information and conditioning as well as job specific training. It will provide pre- and post-assessments and personalize fitness and job specific training programs. Credit will be determined by the needs of the specific class/profession enrolled. Course offered Fall and Spring.

PEC 123 Introduction to Kayaking 2 Credits

An introduction to the world of kayaking. This course will cover equipment components needed to kayak safely as well as basic strokes, reading the river, rescue techniques, and how to roll a kayak. One class hour, two laboratory hours. Course offered Fall and Spring.

PEC 144 Dance Composition 1 Credit

Teaches the components of composition; staging, timing, movement patterns, rhythms, stylization, etc. The culmination of the course will be a dance solo written and performed by the student. A dance background is recommended. Two laboratory hours. Course offered Fall only.

PEC 148 Physical Fitness Theory and Practice 2 Credits

This course is designed to provide a complete fitness experience. This course includes sections specific to different areas of activity including, but not limited to: Fitness Training, Yoga, Tai Chi, Tae Kwon Do, Cardio Bootcamp, Aqua Fitness, Personal Defense (offerings may vary from semester to semester). It will also include a comprehensive fitness assessment and interpretation that will generate a personalized exercise prescription, which will be executed in a monitored program specific to assigned fitness subject, topic, or theme. Lecture topics will include the benefits of exercise, safety, program design, components of fitness, and other timely topics. The online section(s) of this class require(s) outside physical activity and testing outside the online medium. One class hour, two laboratory hours. Course offered Fall and Spring.

PEC 150 Adventure Bound 2 Credits

A course in which the student will participate in a variety of provocative community/outdoor oriented experiences and classroom presentations. High and low project adventure ropes courses, trust and initiative games, camping and survival skills, circus acrosports, canoeing and hiking sojourns, service to populations at risk, etc., are a few of the adventure experience options from which the student will select several to participate in. One class hour, two laboratory hours. Course offered Fall only.

PEC 151 Men's and Women's Physical Education: Co-ed Golf 1 Credit

An introductory course on the basic skills, strategies and techniques of golf. Two class hours. Course offered Fall and Spring.

PEC 157 Men's and Women's Physical Education: Co-ed Racquetball 1 Credit

A course introducing the basic skills, rules and strategies of racquetball. The course will include safety, basic strokes and positioning for singles, doubles and cutthroat. Two class hours. Course offered Fall and Spring.

PEC 179 Lifeguarding 2 Credits

A full semester course to certify students in American Red Cross Lifeguarding. Lifeguards must have the ability to recognize hazardous waterfront situations and respond accordingly. The student must pass Red Cross written and swimming skills tests. This course includes CPR for the Professional Rescuer and First Aid. At the completion of this course, the student will receive a Lifeguard Training Card (which includes CPR for the Professional Rescuer and a Community First Aid Card). American Red Cross Administration Fee is $5.00. One and a half class hours, one and a half laboratory hours. Course offered Fall only.

PEC 194 Downhill Skiing/Snowboarding 1 Credit

This course provides each participating student an opportunity to learn and improve his/her skiing/snowboarding skills. Classes meet for lessons at Bristol Mountain on six scheduled evenings. Skiing available before and after lessons. Students must provide their own transportation to Bristol Mountain. An additional fee is charged to the student and payable to Bristol Mountain for lessons and/or rental of equipment. Two class hours. Course offered Fall and Spring.

PEC 253 Stress Management 2 Credits

A course designed to make the student aware of stress and how it can impact his/her quality of life. It will provide methods for identifying stressors and strategies to effectively manage them. Students will be able to construct a personalized lifestyle management program. Two class hours. Course offered Fall and Spring.

PEJ - Physical Education -Criminal Justice

PEJ 101 Physical Fitness I- Criminal Justice 2 Credits

A specialized physical education program for Criminal Justice students. The course will emphasize an understanding of physical fitness and its direct application to the Criminal Justice profession. Specific instructions will cover physical fitness, running, tumbling, swimming, and self-evaluation and exercise program development. Three class hours. Course offered Fall and Spring.

PEM - Physical Education -Men

PEM 132 Basketball 1 Credit

A course introducing the basic skills, rules, and strategies of basketball. Class will be divided into teams and various types of competition will be engaged in, as well as practice sessions to improve skills. Two laboratory hours. Course offered Fall and Spring.

PEW - Physical Education -Women

PEW 145 Dance Technique 1 Credit

Course consists of modern and jazz. Emphasis is placed on correct form and techniques. A long warm-up of barre and floor work is followed by learning set routines. Two laboratory hours. Course offered Spring only.
PEW 148  Fitness for Women  2 Credits
A course designed to provide a complete fitness experience specifically for women. The content includes the assessment of present fitness level and the development and practice of a balanced, individualized physical fitness program. The emphasis of the course is the specialized needs of women in relation to fitness and exercise, the responses of women to exercise, and the special problems faced by women in fitness activities. The online section(s) of this class require outside physical activity and testing. Three class hours. Course offered Fall and Spring.

PHL - Philosophy

PHL 101  Introduction to Philosophy  3 Credits
An introduction to the fundamental questions of philosophy, including such issues as determinism, freedom, and responsibility; the relationship of mind to body; the grounds and limits of human knowledge; and the existence and nature of God. Three class hours. (SUNY-H) Course offered Fall and Spring.

PHL 102  Introduction to Logic  3 Credits
A study of the inductive and deductive processes of reasoning in the light of classical and contemporary thought, including the analysis of ordinary language and its pitfalls, and the relation of logic to scientific inquiry and method. Three class hours. (SUNY-H) Course offered Spring only.

PHL 103  Introduction to Ethics  3 Credits
An introduction to basic problems in ethics, emphasizing theories of the good life, the morally good person, and morally right action, and their application to the most significant ethical questions in contemporary society, such as abortion, euthanasia, human sexuality, social and economic justice, violence, and use of the environment. Three class hours. (SUNY-H) Course offered Fall and Spring.

PHL 105  Technology and Values - GR - WR  3 Credits
A study of the ways that the advance of technology relates to the development of values. The course will investigate how we evaluate and respond to technology, and will examine technology’s impact upon such values as freedom, individuality, growth, work, and the political process. The course includes topics that computer science and engineering technology students need to understand, such as: the unique ethical problems in information technology; ethical practices to minimize computer misuse; ACM/IEEE Software Engineering Codes of Ethics and Professional Practice; the morality of software piracy; hacking and viruses as well as questions raised by globalization. Three class hours. (SUNY-H) Course offered Fall and Spring.

PHL 106  Topics in Philosophy  3 Credits
This course is designed to cover philosophical topics of special interest. Offerings will vary each semester, but each course will focus on an important historical or contemporary theme, problem, or issue in philosophy. Examples of possible offerings include Genocide, Ethics and Reconciliation, Plato’s Metaphysics and Epistemology, Philosophy in Popular Culture, Equality and Social Justice. Three class hours. Course offered Fall and Spring.

PHL 108  World Religions: Western Traditions - WR  3 Credits
An introduction to the academic study of religion through the exploration of some of the major Western religious traditions of the world. This course examines the historical development, the fundamental doctrines and beliefs, practices, institutions, and cultural expressions of Western religious traditions. This course also addresses some of the essential differences and similarities that exist among Western religious traditions, and points to the uniqueness of each of them. The course includes the examination of ancient religious culture, Judaism, Christianity, and Islam. This course fulfills the MCC requirement for a humanities or social science elective. Three class hours. (SUNY-WC/H) Course offered Fall only.

PHL 109  World Religions: Eastern Traditions - WR  3 Credits
An introduction to the academic study of religion through the exploration of some of the major Eastern religious traditions of the world. This course examines the historical development, the fundamental doctrines and beliefs, practices, institutions, and cultural expressions of Eastern religious traditions. This course also addresses some of the essential differences and similarities that exist among Eastern religious traditions, and points to the uniqueness of each of them. The course includes an examination of the differences in Eastern and Western thought, Hinduism, Jainism, Buddhism, Taoism, Confucianism, and Shinto. This course fulfills the MCC requirement for a humanities or social science elective. Three class hours. (SUNY-H/DWC) Course offered Spring only.

PHL 210  Human Rights and Democracy in Domestic and International Contexts - GR - WR  3 Credits
This course introduces students to (i) the general conceptual and normative claims of democracy and the modern human rights movement and (ii) specific problems of democracy and human rights. General issues include the role and limits of national sovereignty and the moral and legal bases of human rights. Specific problems are drawn from among the following: genocide and humanitarian intervention, global poverty, religious liberty and religious tolerance, feminism and the roles of women, cultural differences in conceptions of democracy and human rights. We study both conceptual and practical issues in democracy and human rights. Three class hours. Course offered Fall only.

PHL 250  Professional Ethics  3 Credits
A study of ethical principles and of ethical problems in the professional world. The course is intended to provide students with the ability to analyze ethical situations within a specific profession such as health care, business, and public administration. The course includes lectures, discussions, case analyses, the study of codes of ethics, and individual projects. The topic for each semester is indicated in the course title. The course may not be repeated for additional credit hours. Three class hours. (SUNY-H) Course offered Spring only.

PHL 290  Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

PHO - Photography

PHO 101  Photography for Non-Majors I  3 Credits
A course which may be used by students wishing to employ photography for personal expression as well as those wishing to use the course work to supplement or enter a career education. Students acquire skills in the use of photographic equipment and processes through a series of assignments including such subjects as stop-action, available light, flash and portrait lighting, developing negatives and producing finished enlargements. All equipment necessary to complete the projects is made available to the students, who may also use the course work to achieve better results from any equipment they may own. Two class hours, two laboratory hours. This course fulfills the MCC requirements for a humanities elective. (SUNY-A) Course offered Fall and Spring.

PHO 106  Photography I  3 Credits
Introduction to the principles, techniques, and theories of the photographic process. The course examines the fundamentals of photographic equipment and digital procedures, including exposure, organization and enhancement of digital photographic images. Natural light assignments will be supported by lectures and demonstrations. Student supplies digital manually adjustable camera and photographic inkjet paper. Three laboratory/class hours. This course fulfills the MCC requirement for a humanities elective. (SUNY-A) Course offered Fall and Spring.

PHO 111  Photography II  3 Credits
An intermediate photographic course with emphasis on exposure control, white balance and mixed lighting situations, studio and location lighting techniques. Assignments designed for visual impact, image communication, technical and aesthetic qualities. Student supplies camera, photographic inkjet paper, and removable flash unit. Two class hours, three laboratory hours. Course offered Spring only. Prequisite: PHO 106 or permission of instructor.
PHO 213 Color Photography 4 Credits
This course is designed to introduce the student to an advanced production of color digital photographs. Utilizing a strong studio component, the application of large format cameras and electronic strobe lighting will be explored in a variety of settings, including portraiture, illustration, and commercial assignments. Two class hours, four laboratory hours. Course offered Spring only.
Prerequisite: COM 106 or PHO 106 or COM 113 or PHO 113 or permission of instructor

PHO 223 Photojournalism and Documentation 3 Credits
An advanced course in applied photography that introduces the equipment, techniques, skills and concepts of a photographic document. Class includes both the creation of original documentary photographs, as well as the editing, sequencing, captioning and layout of a photo essay. Two class hours, two lab hours. Course offered Fall and Spring.
Prerequisite: COM 106 or PHO 106 or COM 113 or PHO 113 or permission of instructor

PHO 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall only.

PHY - Physics

PHY 100 Preparatory Physics 4 Credits
This course is suggested for those who have not successfully completed high school physics or have an inadequate preparation in mathematics or physics. It is also a preparatory course for students intending to follow the Applied Physics sequence. Topics will include problem solving techniques, velocity, acceleration, force, Newton's Laws of Motion, momentum, energy, and conservation laws. This course fulfills the MCC requirement for a natural science elective. Three class hours, two laboratory hours. Course offered Fall and Spring.
Prerequisite: MTH 104 or MTH 165 taken concurrently or previously completed.

PHY 120 Physics for Non-Majors Laboratory 1 Credit
A laboratory course to supplement class lectures in PHY 121. Exercises will cover motion, Newton's Laws, energy, electricity, magnetism, optics and modern physics. Computers will be used extensively to collect and analyze data, process video images, and run simulations. Two laboratory hours. NOTE: This course only meets SUNY General Education Natural Science requirements when both PHY 120 and PHY 121 are successfully completed. (SUNY-NS) Course offered Fall and Spring.
Prerequisites: PHY 121 may be taken concurrently or previously completed.

PHY 121 Physics for Non-Majors I 3 Credits
A non-mathematical course in classical and modern physics; intended for those seeking a natural science elective. Topics include gravitation, electricity and magnetism, the nature of light, Einstein's Theories of Relativity, Quantum Mechanics, blackholes, and the Big Bang. Students interested in taking a transferable laboratory science course should enroll in PHY 120 concurrently. Three class hours. NOTE: Students who successfully complete PHY 121 may, with addition of PHY 120, complete the requirement of SUNY Natural Science General Education. PHY 120 may be taken concurrently or in a later semester, but the student will not have satisfied the SUNY requirement until both PHY 120 and PHY 121 are successfully completed. (SUNY-NS) Course offered Fall and Spring.

PHY 131 Applied Physics I 4 Credits
An introductory course in physics at an intermediate mathematical level. Appropriate for non-science majors and those in the engineering technologies. Topics to include statics, dynamics, mechanical work and energy, conservation of momentum, and rotational dynamics. Three class hours, two laboratory hours. (SUNY-NS) Course offered Fall and Spring.
Prerequisite: PHY 120 or PHY 121, or MTH 141 or MTH 165 taken concurrently or previously completed.

PHY 132 Applied Physics II 4 Credits
A continuation of PHY 131. Topics to include the properties of materials, temperature, heat and thermodynamics, vibrational motion, wave motion, sound, and geometrical and physical optics. Three class hours, two laboratory hours. Course offered Fall and Spring.
Prerequisites: PHY 131; MTH 141 or MTH 165 taken concurrently or previously completed.

PHY 141 Radiographic Physics 3 Credits
An introductory course in radiography, magnetism, and radiation physics, stressing the basic principles underlying the operation of x-ray equipment and auxiliary devices. Topics will include AC and DC circuits, electromagnetism, electronics, production and detection of x-rays, and x-ray machine circuitry. Spring semester only. Two class hours, two laboratory hours. (SUNY-NS) Course offered Spring only.
Prerequisite: XRT 111

PHY 145 College Physics I 4 Credits
An introductory course in classical mechanics at the mathematical level of intermediate algebra and trigonometry. Intended for transfer students seeking a laboratory science elective and for those in life science and pre-professional programs. Topics include vectors, translational and rotational kinematics and dynamics, work and energy, impulse and momentum, and simple harmonic motion. Available both fall and spring, and summer. Three class hours, two laboratory hours, one conference hour. (SUNY-NS) Course offered Fall and Spring.
Prerequisite: Either MTH 140 or MTH 165 taken concurrently or previously completed.

PHO 135 Survey of Digital Photography 3 Credits
An introduction to the historical, technical, operational and creative aspects of digital photography. The course focuses on the production of digital images and visual sequences that tell a story, communicate an idea, illustrate a theme, or convey a message. Techniques of planning, refining, capturing and enhancing images are explored in a computer lab setting. Hands-on experience with digital cameras and photographic imaging software is emphasized. Students will be expected to complete a series of assignments and create several portfolio images demonstrating their comprehension of the technical and aesthetic aspects of digital photography. Three class hours. This course fulfills the MCC requirement for a humanities elective. Course offered Fall and Spring.

PHO 140 History of Photography: Early 3 Credits
Through a review of photographic technologies and traditions prior to World War I, photography's contribution to nineteenth century visual art is examined within the context of social, cultural, political, economic, and scientific impact. Specific topics will include: the portrait industry; medical, criminal, and ethnographic photography; war documentation; travel and exploration photography; photography as a tool for social reform; and the medium's relationship to the fine arts. Illustrated presentations, lectures, research, field trips and discussion. This course fulfills the MCC requirement for a humanities course and a social science elective. Three class hours. (SUNY-H) Course offered Fall only.

PHO 145 History of Photography: Modern 3 Credits
A critical analysis of post World War I photography which questions the medium's role in art, journalism, propaganda, advertising, and everyday life. Major movements, practitioners, and leading photographic theoreticians are examined in the context of photography's ability to record the "truth" and influence social and cultural identity. Illustrated lectures and presentations, discussion, field trips, and individual research projects. This course fulfills the MCC requirement for a humanities course and a social science elective. Three class hours. (SUNY-H) Course offered Fall and Spring.

PHO 164 Digital Imaging 3 Credits
This course will provide the student with an introduction to programming and design concepts used in developing a Web site. Topics include coding HTML, Cascading Style Sheets, universal design, programming with JavaScript, multimedia and interactivity, e-commerce, Web promotion, file transfer protocols, and implementation on a server. Students will develop an interactive, multi page Web site as a portfolio project. A solid understanding of file management (i.e. file paths and directory hierarchies) is strongly recommended. Two class hours, two laboratory hours. Course offered Fall and Spring.
PHO 108 or permission of instructor.
PHY 146 College Physics II 4 Credits
A continuation of PHY 145. Topics include electrostatics, electric potential and energy, DC circuits, magnetism and electromagnetic induction, electromagnetic waves and wave properties, optics, and modern physics. Offered both fall and spring. Three class hours, two laboratory hours, one conference hour. (SUNY-NS) Course offered Fall and Spring.
(Pequisites: PHY 145 with a grade of C or higher; MTH 141 (may be taken concurrently) or MTH 185.

PHY 154 General Physics I 4 Credits
An introductory course in classical mechanics and waves using calculus. The course is intended primarily for transfer students pursuing computer science and pre-professional programs that require the study of physics using calculus. Offered only during the summer session. Three class hours, three laboratory hours. (SUNY-NS) Course offered Summer only.
Prequisites: PHY 154 with a grade of C or higher.

PHY 155 General Physics II 4 Credits
A continuation of PHY 154. Topics to include electricity and magnetism, DC and AC circuits, optics, and topics from modern physics. Offered only during the summer session. Three class hours, three laboratory hours. (SUNY-NS) Course offered Summer only.
Prequisites: PHY 154 with a grade of C or higher.

PHY 161 University Physics I 4 Credits
An introductory course in classical mechanics using calculus; intended for those seeking a concentration in engineering, mathematics, or natural science. Topics include kinematics, Newton’s Laws, work, energy, momentum, rotational motion of rigid bodies, and harmonic motion. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring.
Prequisites: PHY 211 taken concurrently or previously completed; high school Regents physics with a grade of 70 or higher or PHY 131 with a grade of C or higher, or PHY 145 with a grade of C or higher.

PHY 261 University Physics II 4 Credits
An introduction to electric and magnetic fields. Topics include Coulomb’s, Gauss’s, Biot-Savart, Ampère’s, Faraday’s Laws, and Maxwell’s Equations. Three class hours, three laboratory hours. Course offered Fall and Spring.
Prequisites: PHY 161 with a grade of C or higher and PHY 211 with a grade of C or higher.

PHY 262 Modern Physics 4 Credits
An introductory course in modern physics for those who have completed two semesters of University Physics. Topics include relativity, quantum mechanics, and the application of quantum mechanics to atomic and nuclear structure. Three class hours, three laboratory hours. Course offered Spring only.
Prequisites: PHY 261 with a grade of C or higher; MTH 212 or MTH 225 taken concurrently or previously completed.

PHY 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

PLA - Plastics Technology

PLA 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

PLE - Police: Law Enforcement

PLE 101 Fundamentals of Policing 14 Credits
This course examines and introduces recruit officers to the criminal justice system with special emphasis on the roles and responsibilities of police officers. Focuses on the legal basis for law enforcement operations starting with the United States Constitution and specifically exploring the State of New York: Penal Law, Criminal Procedure Law, Vehicle and traffic Law, and Juvenile Procedures. Report writing skills are taught and practiced. Recruit officers are introduced to defensive tactics-based techniques used by police officers. Recruit officers are introduced to physical fitness and wellness designed to meet the needs of law enforcement professionals including a pre-test. Thirty-seven class hours, three laboratory hours. Must be a sworn police officer or peace officer employed or sponsored by a law enforcement agency. Course offered Fall only.

PLE 102 Police Proficiencies and Procedures 18 Credits
This course focuses on the proficiencies and procedures applied through critical thinking techniques and hands-on development. Analytical, investigative techniques are developed. Application of the scientific method to criminal and traffic investigation is developed. Firearms training, Emergency vehicle operation, and emergency medical service skills are developed. Intermediate defensive tactics skills and intermediate physical fitness training and wellness including a mid-test are further developed. Forty class hours. Must be a sworn police officer or peace officer employed or sponsored by a law enforcement agency. Course offered Fall only.

PLE 103 The Community and Policing: Serving Special Populations 14 Credits
This course is designed to give each officer insight into the cultural diversity and special needs of the community he/she will serve. Special emphasis is placed on ethical issues, stress and community resources and services. The course will also teach the officer how to effectively and compassionately deal with child abuse cases, emotionally disturbed persons, conflict management and persons with disabilities, as well as how to become a crime prevention resource. Advanced defensive tactics training with proficiency testing and advanced physical fitness and wellness training and final testing included in this course. Thirty-three class hours, seven laboratory hours. Must be a sworn police officer or peace officer employed or sponsored by a law enforcement agency. Course offered Fall and Spring.

PLE 104 Practicum in Policing I 1 Credit
This one-week course is designed to place part-time police recruits into an application laboratory experience where he/she applies the basic principles, theories, and techniques taught in the training academy. The recruit officer/deputy is under close supervision of an assessment professional - the Field Training Officer. Successful completion of this course leads to certification as a Police Officer by the NYS Bureau for Municipal Police. Forty experiential hours. Course offered Spring only.
Prequisites: PLE 101, PLE 102, PLE 103.

PLE 108 Corrections Officer Basic Training 22 Credits
This course examines the operations of the criminal justice system with general emphasis on the role and responsibility of a corrections officer. This 15-week course is designed to prepare a student for a career in the corrections field. It is a knowledge and skills based program. The course focuses on the legal basis for the corrections system, starting with a review of the United States Constitution, exploring the New York State Penal and Criminal Procedure Laws. It also covers those personal and professional skills necessary to each successful corrections officer. State certification is awarded upon successful completion. Student must be hired and sworn as a corrections officer. Thirty-two class hours, eight laboratory hours per week for 15 weeks. Course offered Summer only.

PLE 131 Breath Analysis Operator 2 Credits
This course is designed to prepare students to operate a variety of breath test equipment and be able to correctly interpret the findings of the tests. The chemical composition of alcohol is explored, as well as show the various instruments analyze the subject’s breath for measurable traces of alcohol. The student is eligible for New York State certification upon successful completion of this course. Thirty class hours. Course offered Fall only.
Prequisites: Must be a sworn police or peace officer.
PLE 139 Crime Prevention 4.5 Credits
This course provides a historical, philosophical, and operational introduction to proactive crime prevention by communities, law enforcement agencies and individuals. Comprehensive as well as individual strategies and actions will be explored. Subjects to be developed will include protection methods for the person, home and business. Skills for planning and implementing crime prevention programs will be developed and assessed. Public Safety professionals successfully completing this course will receive a New York State certification as a Crime Prevention Officer. Seventy class hours for the semester. Course offered Fall and Spring.

PLE 140 Criminal Investigation 4.5 Credits
This course is designed to prepare experienced law enforcement officers for specialized assignment in criminal investigation. Emphasis is placed on the organizational and analytical skills necessary to conduct a criminal investigation in a free society. Topic areas to be explored include statutory and policy dimension to investigation, the general process of investigation and case management, obtaining and securing physical evidence, documentation required, an introduction to interview and interrogation and special considerations in specific types of crime. Preparation of a prosecutorial package for trial summarizes this course. Must be employed as a Law Enforcement Officer. Seventy class hours for the semester. Course offered Spring only.

PLE 151 Police Baton (PR-24) 2 Credits
This course will provide students with the methods to instruct others in the use of the PR-24 Police Baton. The student will be required to demonstrate proficiency with the PR-24, as well as test their knowledge on the use of force as defined in New York State Penal law. Instructional techniques will be discussed and the student will be tested on their ability to instruct others. Two class hours. Course offered Fall and Spring.

PLE 153 RADAR/LiDAR Operator 2 Credits
This course will train students in the proper use of RADAR speed detection instruments. The curriculum includes RADAR theory, vehicle and traffic law, court preparation and presentation. Each student will develop skills in calibrating the RADAR equipment and practice speed estimates. Thirty-two class hours. Course offered Spring only. Prerequisite: Must be a sworn police or peace officer.

PLE 165 Enhanced In-Service .5-1 Credit
Designed for public safety professionals, this course provides 7-15 hours of annual, required common core instruction, including updates on changes in the field. This instruction will be encompassed from the Bureau of Municipal Police, Office of Public Safety general subject areas for police in-service education. The subject areas will be legal issues, police and the public, police procedures, mechanics of arrest, and educational electives.

A lecturer/facilitator will present this instruction. At the conclusion of this course the participant will be given an authentic assessment consisting of one or more of the following: written test, oral exam, oral reporting, practical performance exam of skills learned or peer assessment. Due to the annual requirement of instruction, this course may be taken more than once. Variable class hours. Course offered Spring only.

PLE 166 Fundamentals of Accident Scene Investigation 4.5 Credits
This lecture and field work will prepare officers to accurately and systematically investigate vehicular accidents. Methodology taught includes accident scene photography, scale diagramming, triangulation, evidence collection, accident reconstruction and casual contribution factors. Student must be employed as a law enforcement officer. Seventy class hours for the semester. Course offered Fall and Spring.

PLE 167 Advanced Techniques in Accident Scene Investigation 4.5 Credits
This course is designed to prepare police officers to become proficient in the analysis of technical data found at the scene of the crash. Instruction includes: lecture and field projects in vehicle dynamics, development from field sketches and scale diagrams of possible point of perception, actual point of perception, initial contact, maximum engagement and final resting place of the involved vehicles, lectures and field projects dealing with thrust diagrams, vehicle rotation, severity of crashes, lecture and field examinations of crashed vehicles utilizing a vehicle damage record sheet. State certification is awarded upon successful completion. Two class hours, one laboratory hour. Students must be employed as a law enforcement officer and have the ability to use algebraic reasoning. Seventy class hours for the semester. Course offered Fall and Spring. Prerequisite: PLE 166.

PLE 201 Interview and Interrogation 2 Credits
The program is designed to provide investigators with proven techniques that can be applied in various accusatory and non-accusatory interview situations. Participants will develop skills in preparing for the interrogation with a “game plan” which emphasizes a pro-active rather than reactive role. Participants will learn what to expect, what to look for, and how to interpret what is happening in the interrogation setting. A series of lectures, video tape exercises, practical hands-on classroom experiences, and evening assignments are used in the instruction. The program includes up-to-date information on the legal aspects of interrogation and admissibility of the confession into court. Student must be in service as a public safety professional. Twenty-eight class hours, seven laboratory hours. Course offered Spring only.

PLE 202 Tactical Warrant Service and Building Searches 2 Credits
This course will educate public safety officers assigned to conduct building searches and narcotic search warrants. The curriculum includes situational risk analysis, legal issues and liability, planning, briefing, critiquing exercises, Active Countermeasures, Dynamic and Covert Entry techniques, weapons control and retention, and basic and advanced shooting skills. Upon successful completion of this course, the student will be able to demonstrate their proficiency by written test, oral report, practical exam of performance skills, and peer assessment. Thirty-five class hours. Must be a sworn police or peace officer. Course offered Fall and Spring.

PLE 204 Practicum in Policing II 9 Credits
This twenty-week course places the recruit officer/deputy into an application laboratory experience in which his/her degree of direct involvement accelerates with experience. He/she applies the principles, theories and techniques taught in the academy stage, to the operating demands of the street. The officer/deputy is under the close and continuous supervision of a specially trained assessment professional - the Field Training Officer. Successful completion of this course leads to certification as a Police Officer by the NYS Bureau of Municipal Police. Forty experiential hours. Course offered Fall and Spring. Prerequisites: PLE 101, PLE 102, PLE 103.

PLE 210 Police Supervision 6 Credits
The purpose of the course in Police Supervision is to ensure that law enforcement officers newly promoted to supervisory rank receive a course of professional training in the principles of supervision and management to prepare them to carry out their duties properly. This course reflects a balanced overview of the role of the supervisor and also provides an understanding of the knowledge and the skills needed by the supervisor to function effectively, efficiently, and professionally. Special emphasis is placed on incident management, leadership skills, communications, and resource development. Student must be a law enforcement professional who is in line for promotion. One-hundred five class hours. Course offered Spring only.

PLE 220 Instructor Development Course 4.5 Credits
Public safety professionals have important knowledge and skills obtained through study and life experience. This course will provide the tools for the Bureau of Municipal Police instructor candidate to develop the research, preparation, and communication skills necessary for effective presentations. The focus is on training needs, writing instructional objectives, lesson planning, graphic support, adult learning concepts, communication skills, the instructional process, and assessment. Participants will be required to develop and deliver a fifty-minute instructional block on a police topic of their choice. Student must be in service as a
PLE 221  Field Training and Evaluation  2 Credits
This course will provide the proper concepts of leadership and techniques of assessment, counseling, and documentation necessary for an experienced public safety professional to supervise and evaluate newly assigned recruit officers who have completed the academic component of basic recruit training. The focus is to develop the abilities of the experienced public safety professional to assist the recruit in a smooth transition from academic lecture to street reality. Successful completion of this course fulfills the requirements to become a Field Training Officer.  Student must be in service as a public safety professional for at least three years. Seventy class hours for the semester. Course offered Fall only.

PLE 222  Firearms Instructor Course  4 Credits
This course will provide the research, preparation and communication skills necessary for effective presentations. Range safety and management are covered in detail through both classroom instruction and practical exercises. The focus of this course is on identifying training needs, writing instructional objectives, lesson planning, adult learning concepts, instructional processes, rules of the range, and assessment. Special emphasis will be placed on New York State Penal Law Article 35 on the justification and use of deadly physical force. Participants will be required to design and deliver a fifty-minute instructional block on a firearms topic. Successful candidates will receive certification by the New York State Bureau of Municipal Police as a Firearms Instructor. Student must be employed as a public safety professional. Forty-five class hours, twenty-five laboratory hours. Course offered Spring only.  Prerequisite: Successful completion of PLE 220.

PLE 231  Contemporary Issues in Public Safety II  1 Credit
This contemporary issues course provides the opportunity for public safety professionals to intensively confront the operational, administrative, leadership, and training issues of the day in the time compressed decision making environment of public safety agencies. A lecturer/facilitator will present the issue to be explored, analyze it, and then facilitate an exchange among the registrants on how the public safety community should respond. Some examples of issues to be confronted are increasing homicide rates, community notification on crime patterns and criminals, bias crime, and high speed pursuits, among others. At the end of the course, each registrant will author a position paper on the issue and her/his recommended public safety response. Due to the changing nature of the subject matter, this course may be taken more than once.  Student must be in service as a public safety professional. Sixteen class hours. Course offered Fall and Spring.

PLE 233  Crime Scene and Evidence Handling  4.5 Credits
This course is the entry level offering for evidence technicians and specialists on the scientific techniques for processing a crime scene. Topic areas to be explored include constitutional and statutory law on search, seizure and admissibility of evidence, determining the expanse of the crime scene(s), the conduct of confined and open field searches, types of searches, evidence collection techniques, evidence control, packaging and documentation, and court room testimony. Special attention will be placed on explosion, detonation and arson processing. Must currently be a police officer. Sixty class hours, ten laboratory hours. Course offered Fall and Spring.  Prerequisite: PLE 152.

PLE 234  Defensive Tactics Instructor  4 Credits
This course is designed to develop specialized content knowledge for New York State Bureau of Municipal Police certified General Topics Instructors. The course focuses on the continuum of force which law enforcement officers may employ in restraining and arresting an individual. Topics to be explored include the law and policy on the use of force, the defensive tactics system, stimulus response training, levels of force/restraint on the continuum, verbal and physical techniques and safety considerations and techniques. The course will include both instructional and performance components. Upon successful completion of the course, participants will receive specialty certification by the New York State Bureau of Municipal Police as a Defensive Tactics Instructor. Must be a Peace Officer or Police Officer. Fifty-six class hours, fourteen lab hours. Course offered Fall only.  Prerequisite: PLE 220.

PLE 244  Advanced Firearms Instructor  2 Credits
This course is designed to develop advanced instructional techniques for New York State Bureau of Municipal Police certified Firearms Instructors. Topics to be explored include weapon retention, response techniques to deficient shooters, safe operation of range facilities, instruction on and uses of special weapons, instruction on low light shooting. Occupational Safety and Health Administration standards for range operations, and legal obligations of range operators. Twenty-eight class hours, seven lab hours. Course offered Fall only.  Prerequisite: PLE 222.

PLE 265  Supervisor Enhanced In-Service  .5 Credit
This course provides 7-15 hours of annual required common core instruction on operational, supervisory and management theories and techniques for the public safety supervisor. This instruction will be encompassed from the Bureau of Municipal Police, Public Safety Office general subject areas for police in-service education. The subject areas will include: legal issues, police and the public, police procedures, mechanics of arrest, and educational electives. A lecturer/facilitator will present this instructional. At the conclusion of this course, the participant will be given an authentic assessment consisting of one or more of the following: written test, oral exam, oral reporting, practical performance exam of skills learned, or peer assessment. Due to the annual requirement of instruction, this course may be taken more than once. Must be in service as a Supervisor for Public Safety Professionals. Variable class hours. Course offered Fall and Spring.

PLE 270  Contemporary Issues in Public Safety  Variable Credit
This contemporary issues course provides the opportunity for public safety professionals to intensively confront the operational, administrative, leadership and training issues of the day in the time compressed, decision making environment of public safety agencies. A lecturer/facilitator will present the issue to be explored, analyze it and then facilitate an exchange among the registrants on how the public safety community should respond. Some examples of issues to be confronted are increasing homicide are increasing homicide rates, community notification on crime patterns and criminals, bias crime, and high speed pursuits, among others. At the end of the course, each registrant will author a position paper on the issue and her/his recommended public safety response. Due to the changing nature of the subject matter, this course may be taken more than once. Student must be in service as a public safety professional. Course offered Fall and Spring.

PLE 290  Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.
Introduction to Paralegal Studies

Introduces the student to the paralegal profession and the common core of legal knowledge and skills that all paralegals should possess. Areas covered include: what paralegals do, a history of the profession, the significance of paralegal professional associations, personal attributes of the professional paralegal, employment of paralegals, paralegal specialized practice areas, paralegal compensation, the organizational structure of law firms, the regulation of legal professionals, unauthorized practice of law, and contemporary issues. Aspects of these topics are also included in subsequent courses. This course also introduces students to sources of American law, the court system, and alternative dispute resolution. Emphasis is on the paralegal’s participation on the legal team. Two class hours. Course offered Fall only.

PLS 263 Contract Law for Paralegals

Provides paralegal students with the basic theory of contract law, sample contracts from a variety of specialized practice areas, supplemental cases, and the opportunity to draft simple contracts. Included in the course are the basic contract requirements, contract provisions in selected specialized practice areas, the Statute of Frauds, and the Uniform Commercial Code. Students learn key contract terms, sample clauses, perform exercises, draft simple contracts, and conduct case analysis. Since the substantive area of contract law underlies many other specialty areas it is important that the well trained paralegal can analyze the needs of the client both short term and long range. This class will also explore how paralegals can apply the elements of reasoning and thereby increase the effectiveness of the legal entity. In this area this course will draw on concepts from the domains of critical thinking and analysis, total quality management and closely allied philosophy of continuing quality improvement, communications which build trust, conflict management and resolution, and decision making. Two class hours. Course offered Spring only. Prerequisite: PLS 260.

PLS 264 Administrative Law

This course introduces students to a rapidly expanding area of law. Students learn how and why administrative agencies are created, how they establish rules, and how they investigate and enforce those rules. Students will also learn how to assist clients to obtain benefits under some administrative agencies, how to fill out administrative agencies’ forms, and how to challenge administrative agencies’ decisions. Some administrative agencies, Social Security Administration, for one, permits paralegals to represent clients. Federal and New York administrative agencies are covered. One class hour. Course offered Fall only.

PLS 265 Fact-Finding Research

Provides students with strategies for fact-finding and investigation. Included in the courses are interviewing techniques for gathering information from clients, witnesses and agencies. Also included are investigative techniques for determining what information is needed and finding, organizing, verifying and documenting the information. Fact-finding research is an important aspect of paralegal responsibility. Students will learn to develop critical thinking skills, communicate effectively while in pursuit of information, and apply good judgement and common sense when encountering ethical problems. One class hour. Course offered Fall only.

PLS 266 Legal Research and Writing

Students develop legal research and analysis strategies through lecture, library exercises, and computerized research. Understanding the structure of the sources of law and utilizing critical thinking skills equip students to undertake legal research systematically. Students use federal and New York State CD-ROM and law books consisting of substantive and procedural documents, digests, reporters, statutes, rules and regulations of administrative agencies, and the Internet to research databases and communicate with others. Writing exercises involve analyzing, summarizing, and synthesizing research in a clear, concise, accurate and timely manner based upon the procedural requirements of the law. Three class hours. Course offered Fall only. Prerequisites: Successful completion of PLS 260, or permission of program director.

PLS 267 Litigation and the Federal and NYS Procedural Laws

Provides students with the knowledge, skills and practice performing the duties of the litigation paralegal. Through the use of case simulations, students learn to gather, review, index and summarize documents, and to work with the lawyer and legal secretary to manage case files through pretrial, trial and post-trial stages. Guided by federal and New York State procedural laws, and rules and regulations of New York and local court rules, students learn to draft common litigation correspondence, notices and legal documents. These include summons, complaints, answers, motions, affidavits, subpoena, discovery documents, and orders. Students are introduced to the tools used in litigation: manual and computer-based document control systems, deposition exhibitions cross-reference mechanisms, trial notebook categories, trial witness coordinating forms, and trial exhibits tracking forms. Litigation tasks in this course form the foundation for paralegal litigation responsibilities in family law, real estate, debtor/creditor law, criminal law, and personal injury law. Also introduced in this course are automated litigation support systems and an overview of the potential areas for paralegal participation on document production. Three class hours. Course offered Spring only. Prerequisites: Successful completion of PLS 260.

PLS 268 Personal Injury Law

Students learn the basic principles of personal injury law, the application of the Civil Practice Law and Rules (CPLR) to personal injury cases, New York automobile insurance law, worker’s compensation, and procedures for suing municipalities and the State of New York. Students learn to manage document production and organization, including investigating, researching, and drafting the most commonly used forms in personal injury resulting from negligence, vehicular negligence, medical malpractice, strict liability, and product liability. Two class hours. Course offered Spring only. Prerequisites: Successful completion of PLS 266, or permission of program director.

PLS 269 Domestic Relations and Family Law

Introduces students to the paralegal responsibilities in family law practice including New York Domestic Relations Law, General Obligations Law, Social Services Law, Family Court Act, and the Education Law as they govern family situations. Students will draft separation agreements, contested and uncontested matrimonial actions, and other documents related to contemporary family matters. Two class hours. Course offered Spring only. Prerequisites: Successful completion of PLS 266 and 267, or permission of program director.

PLS 270 Debtor/Creditor Law

This course introduces students to debtor/creditor law. Students learn collection procedures, including, but not limited to, “skip-tracing,” enforcing money judgments, effecting special rights of creditors, mortgage foreclosure and mechanics’ liens, working with prejudgment or provisional remedies, and guaranteeing debtors’ procedural due process rights. Students also learn two forms of bankruptcy relief - liquidation and rehabilitation. Emphasis on the law regarding, and performing selected tasks and responsibilities listed.
in "MCC’s Survey Results for Paralegal Competency Expectations" is specialized practice areas relating to debtor/creditor law, under the supervision of an attorney. Three class hours. Course offered Summer only.
Prerequisites: Successful completion of PLS 267 and PLS 269, or permission of program director.

PLS 272 Real Estate Law 2 Credits
Introduces students to real estate law and practice. Topics of study include: property rights, principles of land ownership, sale, financing and conveyance, contracts, mortgage loans, mortgages, deeds, recording, settlement concepts, condominiums, leasing, landlord/tenant summary proceedings, and other property concepts. Students focus on managing multiple participant relationships, and opening, controlling, and closing the real estate file. Emphasis on the law regarding, and performing selected tasks and responsibilities listed in the "MCC’s Survey Results for Paralegal Competency Expectations" in the specialized practice area of real estate under the supervision of an attorney. Two class hours. Course offered Spring only.
Prerequisites: Successful completion of PLS 260 and PLS 268, or permission of program director.

PLS 273 Computer Support Systems 1 Credit
Provides students with the tools to manage litigation. Students learn to determine the criteria for selecting litigation management systems by comparing software demo disks, critiquing systems used in local litigation practices, and bearing in mind the wisdom gained from guest experts. The systems include filing, indexing, and organizing cases involving large numbers of documents, manual and automated litigation support systems, litigation plan and budget worksheets, and court and responsible attorney schedules. Emphasis is on systems and teamwork with the attorney, the law office administrator, computer specialists, other paralegals, and the legal secretary to assure continuing quality effort to manage litigation cases. THIS COURSE FOR PARALEGAL STUDENTS ONLY. One class hour. Course offered Fall and Spring.
Prerequisites: Successful completion of PLS 267, 269, 270, or permission of program director.

PLS 274 Estate Planning, Estates and Trust Administration 3 Credits
Introduces students to the concepts and forms necessary for estate planning and estate and trust administration. Students learn to assist the attorney with a variety of tasks, from opening the estate and appointment of a fiduciary to filing of final account and distribution of assets. Forms, checklists, and deadlines for Federal and New York income, estate, and gift taxation laws and regulations are emphasized. Probate practice is an important area of employability of paralegals. A basic foundation in New York Estates, Powers, and Trusts Law, Uniform Court Rules, and the procedures and forms used in Surrogate’s Court Practice will increase a paralegal’s value to the firm. Three class hours. Course offered Fall only.
Prerequisites: Successful completion of PLS 260 and PLS 268, or permission of program director.

PLS 275 Law Practice Management 1 Credit
Covers the fundamentals of law office organization and management. Subjects covered include basic principles and structure of the management of legal services, personnel and human resources, marketing issues, and management information systems topics such as timekeeping, accounting, administration, and cost-benefit analysis of specialized practice areas of the law. Emphasis on efficient and effective law practice organization through the optimum use of human and technical resources. One class hour. Course offered Fall only.
Prerequisites: Successful completion of PLS 271, 272, or permission of program director.

PLS 276 Legal Ethics and Professional Responsibility 1 Credit
Builds upon ethical situations and professional responsibilities. Students are provided with additional frameworks with which to undertake ethical analysis. Students will study paralegals as emerging professional and efforts directed toward paralegal credentialing and regulation. Included are discussions concerning conclusions reached in the final report of the NYS Bar Association on Non-Lawyer Practice, and recommendations contained in the final report of the American Bar Association Non-Lawyer Activity in Law-Related Situations. Other areas covered include employment discrimination, substance abuse and continuing education requirements. One class hour. Course offered Fall only.
Prerequisites: Successful completion of PLS 260, or permission of program director.

PLS 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.
POS 102 American National Government - WR  
(formerly POS 120)  3 Credits
This course is a study of the American political system, its constitutional foundation, national institutions and contemporary issues. This course examines how the legislative, executive, and judicial branches, in addition to other national institutions, interact with each other and citizens. Three class hours. (SUNY-SS, SUNY-AH) Course offered Fall and Spring.

POS 203 Civil Liberties and Rights in the U.S. - WR (formerly POS 230)  3 Credits
An examination of controversial issues in Constitutional history. This includes a focus on the decision making process of the federal court system with regards to the civil liberties and rights enumerated in the Constitution. Students will read landmark Supreme Court cases which determine both the limits and content of government powers and vital personal freedoms. Three class hours. (SUNY-SS) Course offered Fall only.

POS 205 Comparative Political Systems - WR (formerly POS 225)  3 Credits
This course provides an overview of analytical concepts and tools used in the study of a variety of political systems. This includes the descriptive and analytical examination of political systems generally classified as democratic, non-democratic, or undergoing transition. Particular attention is paid to government institutions and political processes, current leadership, and major public policy of those selected systems under review. Three class hours. (SUNY-DWC) Course offered Fall and Spring.

POS 206 International Politics - WR (formerly POS 220)  3 Credits
This course critically analyzes the structure and principles of the global system. The objective of this course is to give students a fundamental understanding of contemporary international affairs through a systematic examination of those theories, concepts, and events that directly relate to the global system. Topics relating to both state and human security will be addressed. This includes war and peace, terrorism, foreign policy-making, nationalism, and those areas of security relating to the environment, health, and economy. The important function of international law and organizations, and the international political economy will also be introduced. Emphasis will be placed on the role of state and non-state actors, as well as an analysis of both important historical and current events. Three class hours. (SUNY-DWC) Course offered Fall and Spring.

POS 216 Special Topics in Political Science - WR  3 Credits
This course is designed to address specific topics of interest in political science. Offerings are more specific and focused than the introductory surveys. Examples of potential offerings could include The American Presidency, Comparative Public Policy, American National Security, and Urban Politics in a Comparative Perspective. Topics may change from semester to semester based on faculty and student interest. The classes will be primarily lecture and discussion based. Three class hours. Course offered Fall and Spring.

POS 234 Model United Nations - WR  4 Credits
This course offers opportunities for academic, career and personal growth for those interested in international affairs and the political arena. Students will work together researching the history, culture and relevant domestic issues of the assigned country, and will learn about one of the most important international organizations in the world: the United Nations. In the process, this class will provide students with the knowledge and leadership skills (i.e., negotiating, team building, public speaking, etc.) to prepare students as delegates to the Model United Nations Conference. In contrast to standard lecture courses, students will be actively involved in team directed preparation and content delivery. Attendance at the Model United Nations Conference is mandatory. Two class hours, two conference hours. Course offered Spring only. Prerequisite: Registration in this course is by permission only, following an application and selection process that takes place in the Fall Semester.

POS 290 Independent Study - WR  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

POS 300 Introduction to Sport Science  4 Credits
A course designed to expose the student to the components of the sport sciences, including anatomy and physiology, biomechanics, sport medicine, and sport technology as they relate to human exercise. This class includes both theory and practice through a lecture and laboratory experience. Five class hours per week. Course offered Fall and Spring.

POS 301 Introduction to Political Thought - WR  3 Credits
This course offers a survey of western political thought from classical Greece to the present. This course pays attention to the historical context out of which the political thought of Plato, Aristotle, Hobbes, Locke and others arose. Through the examination of the development of political thought, this course will grow an understanding of the nature and foundations of modern governments. Three class hours. (SUNY-SS) Course offered Fall and Spring.

POS 302 American National Government - WR  3 Credits
This course is a study of the American political system, its constitutional foundation, national institutions and contemporary issues. This course examines how the legislative, executive, and judicial branches, in addition to other national institutions, interact with each other and citizens. Three class hours. (SUNY-SS, SUNY-AH) Course offered Fall and Spring.

POS 303 Civil Liberties and Rights in the U.S. - WR (formerly POS 230)  3 Credits
An examination of controversial issues in Constitutional history. This includes a focus on the decision making process of the federal court system with regards to the civil liberties and rights enumerated in the Constitution. Students will read landmark Supreme Court cases which determine both the limits and content of government powers and vital personal freedoms. Three class hours. (SUNY-SS) Course offered Fall only.

POS 305 Comparative Political Systems - WR (formerly POS 225)  3 Credits
This course provides an overview of analytical concepts and tools used in the study of a variety of political systems. This includes the descriptive and analytical examination of political systems generally classified as democratic, non-democratic, or undergoing transition. Particular attention is paid to government institutions and political processes, current leadership, and major public policy of those selected systems under review. Three class hours. (SUNY-DWC) Course offered Fall and Spring.

POS 306 International Politics - WR (formerly POS 220)  3 Credits
This course critically analyzes the structure and principles of the global system. The objective of this course is to give students a fundamental understanding of contemporary international affairs through a systematic examination of those theories, concepts, and events that directly relate to the global system. Topics relating to both state and human security will be addressed. This includes war and peace, terrorism, foreign policy-making, nationalism, and those areas of security relating to the environment, health, and economy. The important function of international law and organizations, and the international political economy will also be introduced. Emphasis will be placed on the role of state and non-state actors, as well as an analysis of both important historical and current events. Three class hours. (SUNY-DWC) Course offered Fall and Spring.

POS 310 Special Topics in Political Science - WR  3 Credits
This is a course designed to address specific topics of interest in political science. Offerings are more specific and focused than the introductory surveys. Examples of potential offerings could include The American Presidency, Comparative Public Policy, American National Security, and Urban Politics in a Comparative Perspective. Topics may change from semester to semester based on faculty and student interest. The classes will be primarily lecture and discussion based. Three class hours. Course offered Fall and Spring.

POS 334 Model United Nations - WR  4 Credits
This course offers opportunities for academic, career and personal growth for those interested in international affairs and the political arena. Students will work together researching the history, culture and relevant domestic issues of the assigned country, and will learn about one of the most important international organizations in the world: the United Nations. In the process, this class will provide students with the knowledge and leadership skills (i.e., negotiating, team building, public speaking, etc.) to prepare students as delegates to the Model United Nations Conference. In contrast to standard lecture courses, students will be actively involved in team directed preparation and content delivery. Attendance at the Model United Nations Conference is mandatory. Two class hours, two conference hours. Course offered Spring only. Prerequisite: Registration in this course is by permission only, following an application and selection process that takes place in the Fall Semester.

POS 390 Independent Study - WR  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

PPE 100 Introduction to Sport Science  4 Credits
A course designed to expose the student to the components of the sport sciences, including anatomy and physiology, biomechanics, sport medicine, and sport technology as they relate to human exercise. This class includes both theory and practice through a lecture and laboratory experience. Five class hours per week. Course offered Fall and Spring.

PPE 106 Individual Sports  3 Credits
A course based on teaching competencies for students future use, focusing on individual sports such as tennis, golf, and racquetball. Students will learn skill development, teaching and coaching strategies, and lifetime fitness benefits. Six laboratory hours. Course offered Fall and Spring.

PPE 120 Team Sports  3 Credits
A course based on teaching competencies for students future use focusing on team sports such as softball, soccer, and basketball. Students will learn skill development, class organizational principles, and coaching strategies. Six laboratory hours. Course offered Fall and Spring.

PPE 150 Adventure Bound  3 Credits
A course in which the student will participate in a variety of provocative community/outdoor oriented experiences and classroom presentations. High and low project adventure ropes courses, trust and initiative games, camping and survival skills, circus acrosports, canoeing and hiking sojourns, service to populations at risk, etc., are a few of the adventure experience options from which the student will select several to participate in. Two class hours, two laboratory hours. Course offered Fall only.

PPE 155 Sport Performance Coaching  3 Credits
Principles of metabolic training, muscle strength and endurance training, and cardiovascular training will be applied to athletic performance. Specifically the course will focus on the development of power, speed, acceleration, agility and quickness for the development of high quality sport performance. Students will design a testing scheme for sport performance, use various modalities to analyze performance, and design a periodized training program for a specific athlete. Two class hours, two laboratory hours. Course offered Spring only.

PPE 170 Introduction to Sport Medicine  3 Credits
Covers the nature, philosophy, and practice of the field of sport medicine. Prevention, emergency care, and rehabilitation as they pertain to certain athletic injuries will be the focus of the course. This course satisfies the requirements of the NYS Education Department Coaching Certification Course: Health Science Applied to Coaching. Three class hours. Course offered Fall and Spring.

PPE 175 Philosophy and Principles of Physical Education  3 Credits
Designed to expose the professional preparation student to the history and development trends of the field. Specifically, exposure to the subfields of Physical Education will be explored. These will include, but not be limited to, Physical Education, Sport Medicine, Sport Psychology, Exercise Physiology, Motor Learning, History of Sport,
Sociology of Sport, Recreation, Health Education, Adapted Physical Education, Coaching, and current issues. Special emphasis on the role of coaching as part of the education system, legal and health considerations, and local, state and national roles as they pertain to sport. This course satisfies the requirements of the NYS Education Department Coaching Certification Course: Principles, Philosophy and Organization of Athletics. Three class hours. Course offered Fall and Spring.

PPE 179 Lifeguarding 2 Credits
A full semester course to certify students in American Red Cross Lifeguarding. Students need to be strong swimmers and must be able to do the breaststroke with whip kick, sidestroke with inverted scissors, and freestyle with rotary breathing. The students must be able to tread water using egg beater kick and surface dive and retrieve a 10 pound brick. Each class warm up consists of 500-yard swim (20 lengths). This course includes CPR for the Professional Rescuer and standard first aid. At the completion of this course, the student must pass the Red Cross written and practical test for swimming. American Red Cross Administration Fee is $5.00. One and a half class hours, one and a half laboratory hours. Course offered Spring only.

PPE 208 Sport, Exercise and Wellness Psychology 3 Credits
As the demand for enhanced sport and exercise performance continues and the focus on Wellness grows, the cognitive or mental aspects within sport, activity and wellness are being exposed. Sport, Exercise and Wellness Psychology has evolved through this need. Specifically, this course will relate the application of conventional psychological areas (personality, motivation, aggression, etc.) to the arena of sport. The focus on psychological skills as applied to performance and wellness is also an essential element of this ever changing field. This course satisfies the requirement for a social science elective. Three class hours. SUNY-SS. Course offered Fall and Spring.

PPE 209 Theories and Techniques of Coaching 3 Credits
This course is designed to examine theories and techniques in coaching through developing information, organization and management skills. Development of technical information, safety aspects and human relationships will be studied. The practicum experience brings the student to an on-site awareness and participation. This course satisfies the state guidelines for elementary and secondary coaching certification. This course satisfies the requirements of the NYS Education Department Coaching Certification Course: Theory and Technique of Coaching. Three class hours. Course offered Spring only.

PPE 210 Theories and Techniques of Coaching 3 Credits
This course is designed to provide essential certifications for pre-service and in-service professionals in the field of health and physical education, coaching and athletics. Specifically, students will participate in the required experiences leading towards certification in Safe Schools Against Violence in Education (SAVE), Dignity For All Students Act (OASA), Mandated Reporter, Heads-Up Concussion Training and Youth Sport Coaching curricula in New York State. One class hour. Course offered Fall and Spring.

PPE 211 Selected Certifications in Youth Sport 1 Credit
This course is designed to provide essential certifications for pre-service and in-service professionals in the field of health and physical education, coaching and athletics. Specifically, students will participate in the required experiences leading towards certification in Safe Schools Against Violence in Education (SAVE), Dignity For All Students Act (OASA), Mandated Reporter, Heads-Up Concussion Training and Youth Sport Coaching curricula in New York State. One class hour. Course offered Fall and Spring.

PPE 213 Gymnastics Theories and Practices 2 Credits
Focus is on the student’s attainment of methods, theory and skills for teaching artistic, rhythmic, and acrobatic gymnastics to participants of pre-school through high school physical education/recreation programs. The history and philosophy of gymnastics and the administration of gymnastic programs (classes, exhibitions, meets and clubs) will also be studied. Three class hours. (Open to Physical Studies students only.) Course offered Spring only.

PPE 214 Early Childhood Physical Education 3 Credits
Early childhood games and activities will be introduced and practiced. The emphasis of this course will be the contribution of games and activities to the cognitive, social, and psychomotor development of children. Online sections of this class require observation time at formal school and informal activity settings. Three class hours. Course offered Spring only.

PPE 240 Selected Topics: Theories of Presentation 3 Credits
An overview and introduction to various methods of presentation to groups and individuals. The ability to effectively communicate ideas, information, and teach skills are fundamental to the fields of exercise, wellness and sport. The goal of this course is to provide theoretical and practical experience in individual and group presentation and written plans for effective presentation of a selected topic useful to the student’s career path. Electronic recording of the presentation for skill critique and development is required. Three class hours. Course offered Spring only.

PPE 245 Dance Methods and Techniques for Physical Studies Majors 1 Credit
A dance technique course designed for dance major students. Dance theory and technique will be covered and the students will be required to develop a dance lesson plan and lead the class in warmups. Two laboratory hours. (Open to Physical Education students only.) Course offered Spring only.

PPE 271 Issues and Perspectives in Sport Science 4 Credits
Designed to explore professional issues within the field of sport science. Topics such as sociological issues, physiology of exercise, and therapeutic exercise as they affect sport and sport participation will be explored. Four class hours, variable laboratory hours. Course offered Fall and Spring. Prerequisites: PPE 170 or PPE 175, and permission of department.

PSC 100 Public Safety Telecommunicator 7 Credits
This is a first course for public safety telecommunicators and dispatchers. It covers operations of a public safety communications center, record keeping, how to communicate clearly in emergency situations, using 911 system communications equipment and communicating with diverse populations. Students successfully completing the course will be certified by the Association of Public Safety Communications Officers Institute. One hundred ninety-two class hours. Course offered Fall and Spring.

PSC 101 Emergency Medical Dispatch 2 Credits
This course prepares the participants to effectively triage illness and injury calls based on the information provided by callers and to competently give pre-arrival instructions.
to those in need of emergency services. Successful completion leads to certification by the National Academy of Emergency Medical Dispatch. Thirty class hours. Course offered Fall only.

PSC 110 Practicum in Public Safety Telecommunicator 12 Credits

This course provides the probationary/trainee public safety telecommunicator with a real-life, applied learning environment for the knowledge and skills acquired in PSC 100 Public Safety Telecommunicator and PSC 101 Emergency Medical Dispatch. This one-on-one learning experience with a communications training officer increases the student’s proficiency as a telecommunicator. The student’s degree of direct involvement increases and accelerates with experience. Course length: five months. Nine hundred instruction hours. Course offered Fall and Spring. Prerequisite(s): PSC 100 and PSC 101.

PSC 202 Law Enforcement Dispatching 7 Credits

This course concentrates on the techniques, roles and responsibilities of law enforcement dispatching. Topics covered include laws, regulations, dispatching procedures, record keeping, communication skills, and law enforcement systems like NYSPIN. Two hundred instruction hours. Course offered Fall and Spring.

PSC 203 Fire Department and Emergency Medical Services Dispatching 7 Credits

This course concentrates on the techniques, roles, and responsibilities of fire and emergency medical services dispatching. Topics covered include laws, regulations, dispatching procedures, record keeping, communication skills, and mutual aid systems. Two hundred class hours. Course offered Fall and Spring. Prerequisite: PSC 100 - Public Safety Telecommunicator, or PSC 101 - Emergency Medical Dispatch.

PSC 212 Practicum in Law Enforcement Dispatching 12 Credits

This course provides the law enforcement dispatcher with a real-life, applied learning environment for the knowledge and skills acquired in PSC 202 Law Enforcement Dispatching. This one-on-one learning experience with a communications training officer increases the student’s proficiency as a law enforcement dispatcher. The student’s degree of direct involvement increases and accelerates with experience. Forty experiential hours per week. Course offered Fall and Spring. Prerequisite(s): PSC 202 Law Enforcement Dispatching.

PSC 213 Practicum in Fire and EMS Dispatching 12 Credits

This course provides the trainee Fire and EMS dispatcher with a real-life, applied learning environment for the knowledge and skills acquired in PSC 203 Fire and EMS Dispatch and PSC 101 Emergency Medical Dispatch. This one-on-one learning experience with a communications training officer increases the student’s proficiency as a dispatcher. The student’s degree of direct involvement increases and accelerates with experience. Nine hundred instruction hours. Course offered Fall and Spring. Prerequisite(s): PSC 203 - Fire and EMS Dispatching.

PSC 290 Independent Study Variable Credit

See the Department Chairperson. Course offered Fall and Spring.

PST - Public Safety Training

PST 113 Hazardous Materials: First Responder Operations .5 Credits

This course provides students with a knowledge that will enable them to respond to and take a defensive role at an incident involving hazardous materials. The response role they will fulfill will help reduce the effects of the incident to the environment, community, and themselves. Eight class hours. Course offered Fall and Spring.

PST 130 Public Safety Incident Management 1-3 Credits

This course introduces the incident command system (ICS) and the critical tasks the first responder must perform to stabilize the emergency in the first twenty minutes of the incident. The course is designed for “first in” responding units from the fire and emergency medical services. Sixteen class hours. Course offered Fall and Spring.

PST 146 Hazardous Materials: Characteristics and Behavior 3 Credits

A study of chemical structures and reactions of hazardous materials with an emphasis on how they impact emergency management. Course topics include basic chemistry bonding, organic and inorganic compounds, and fire chemistry. Each of the nine major hazard classes is examined in depth. The course prepares students to make informed decisions about how hazardous materials may behave when released or combined with fires, transportation accidents, storage accidents, and fixed-site spills. Information gathering, management and use is stressed. Three class hours. Course offered Spring only.

PST 160 Acute Traumatic Stress Management .5 Credits

The course is designed to help public safety providers address emergent psychological needs during a traumatic exposure. The content has been tailored for emergency medical service, fire service, law enforcement responders, and emergency communications personnel to help their colleagues and the public cope with the psychological damage of traumatic stress. Students will also receive training to appropriately deliver death notifications. Eight class hours. Course offered Fall and Spring.

PST 210 Managing the Mass Casualty Incident 1 Credit

This course provides emergency services responders with a practical approach to managing public safety incidents when they are faced with more patients than there are personnel or equipment to care for them. Topics include incident scene planning and management and ways to incorporate these principles on all calls involving multiple patients. Sixteen class hours. Course offered Fall and Spring. Prerequisite: PST 130.

PST 250 Pathway to Effective Leadership of Others .5 Credits

Individuals involved in public safety organizations find themselves in formal and informal leadership roles. This course provides an overview of the concept of leadership, the situational leadership model, and opportunities for each participant to develop selected leadership skills. Both operational and organizational perspectives of public safety leadership are addressed. Eight class hours. Course offered Fall and Spring.

PST 251 Understanding and Motivating Others .5 Credits

Leaders and managers in public safety deal with a wide variety of personalities and the need to motivate others in diverse settings. This course provides a framework to promote the understanding of others’ personalities and a model to increase the success of motivators specifically to public safety organizations and environments. Eight instruction hours. Course offered Fall and Spring. Prerequisite: PST 250.

PST 252 Understanding the Group: A Leader’s Challenge .5 Credits

Public safety leaders and managers need to understand the importance and workings of groups both inside and outside their organizations. This course introduces the subject to leading groups while focusing on the public safety environment. Topics include group developmental stages, group goals, subgroups, and maximizing group effectiveness. Emphasis placed on practical applications or concepts and models. Eight instruction hours. Course offered Fall and Spring. Prerequisite: PST 251.

PST 265 Public Safety Leadership Development Seminar 3 Credits

This course provides aspiring and emerging public safety leaders and those already in leadership positions the opportunity to explore the concept of leadership and to develop and improve their leadership knowledge, skills, and behaviors. The course integrates reading from the humanities, experiential exercises, dialogue, films, and contemporary readings on leadership in the public safety context. Three class hours. Course offered Fall and Spring.
PSY 100  Psychology of Interpersonal Relationships  3 Credits
The Psychology of Interpersonal Relationships is an
experiential approach to everyday intra- and
interpersonal processes. It emphasizes observation,
practice and discussion of such topics as self disclosure,
trust, verbal and nonverbal expression of feelings,
listening skills, conflict resolution, anger and stress
management and the value of cultivating diverse
relationships. Basic psychological principles are
presented and integrated into classroom discussion.
Emphasis is on skill development. It is psychology for
daily living, and is neither a preparatory course for
PSY101 nor a prerequisite for other PSY courses. Three
class hours. Course offered Fall and Spring.

PSY 101  Introductory Psychology  3 Credits
An introductory survey of the major concepts in the
scientific study of human behavior, human development,
motivation, learning, personality, individual differences
and social behavior. Dual emphasis is placed upon
understanding, integration and application to real
life as well as theoretical and methodological issues.
Opportunities for studying, tutoring, and supplemental
testing will be made available to students outside of
class time in the Psychology Learning Center. Three class
hours. (SUNY-SS) Course offered Fall and Spring.

PSY 108  Fundamentals of APA Style  1 Credit
Students will learn the basics of APA style, the
standard writing style for most social sciences. Proper
techniques for citing sources, preparing a manuscript,
and expressing material clearly and accurately will be
covered. Students will practice writing short papers
and components of papers in this style. One class hour.
Course offered Fall and Spring.
Prerequisite(s): Completed English 101 with a C or better,
or completed English 200 with a C or better.

PSY 109  Positive Psychology  3 Credits
Positive Psychology is the scientific study of human
happiness, well-being, and strength of character. This
course takes an empirical and experiential approach
to helping individuals use the science of flourishing
to enhance their lives. Topics covered include happiness,
pleasure, beliefs, positive thinking, character strengths,
values, goal setting, wellness, the mind-body connection,
self-esteem, overcoming perfectionism, relationships,
and enabling institutions. Students may not receive
credit for PSY 109 Positive Psychology and PSY 270
Selected Topics in Psychology - Positive Psychology.
Three class hours. Course offered Fall and Spring.

PSY 110  Understanding Psychological Disorder  3 Credits
This course is designed to give basic information about
psychological disorder and treatment and help students
learn to evaluate approaches to disorder and therapy. We
will look at the historical development and also at recent
theories of disorder and treatment. The course will use
a variety of teaching techniques including lecture, class
discussion, and group activities, and will include a variety
of assignments and grading techniques including tests,
projects, written work, and participation. Course not
open to students who have passed PSY 206, except with
permission of the instructor. Three class hours. Course
offered Fall and Spring.

PSY 130  Foundations of Animal Assisted Therapy  3 Credits
This course will explore the foundations of animal
assisted therapy using a variety of teaching materials and
observing an animal assisted therapy visit. Students will
learn about the history, theoretical base, key empirical
research support, and ethics of animal assisted therapy
as well as evidence based advantages and disadvantages
of applications utilizing animal assisted interventions.
The course will cover the populations of individuals and
groups with whom animal assisted interventions are
utilized as well as applications to educational, mental
health, behavioral, criminal justice, medical and health
care settings. The course is an introduction to the field of
animal assisted therapy and will not allow the student to
independently implement animal assisted therapy. Three
class hours. Course offered Spring only.

PSY 150  Psychology of Human Sexuality  3 Credits
Presents a review of the physiological and psychosocial
components of sexuality. Primary emphasis is placed
on sexuality in the context of love and intimacy, health,
safety, and alternative sexual lifestyles. Three class
hours. Course offered Fall and Spring.

PSY 160  Psychology of Superstitions  3 Credits
An examination of non-critical thinking and human
tendencies to believe unlikely (and impossible) claims
about the human experience, with a special focus on
beliefs on the fringe of serious psychology. Issues
addressed in the course include popular beliefs about
parapsychology, magic, alien abduction, personality
testing, and the mental processes that support these
beliefs. Three class hours. Course offered Spring only.

PSY 170  The Psychology of Eating, Body Image, and Wellness  3 Credits
The Psychology of Eating, Body Image, and Wellness
focuses on the biological, psychological, social, and
spiritual approaches to food cultivation, processing,
preparation, and consumption, as well as the
relationships among dietary patterns, exercise, dieting,
and obesity. Discussions, films, and readings will focus
on the continuum that exists from health-promoting,
competent eating to unhealthy, disordered eating, and
the relationships among body-image, eating, self-
acceptance, and culture. Three class hours. Course
offered Fall and Spring.

PSY 200  Behavior Modification  3 Credits
A study of the principles of conditioning and learning as
applied to practical approaches of behavior management
and change. Special attention will be given to behavior
change in institutional and personal settings. Self-
regulation and cognitive-behavioral techniques will also
be discussed. Three class hours. Course offered Fall and
Spring.  
Prerequisite: PSY 101.

PSY 201  Developmental Psychology - Child  3 Credits
This course is an introduction to the foundations of
development from conception through childhood. The
course will explore the interdependence among the
physical, cognitive, and social domains of development,
and will examine various theories and research methods
used to understand and study the development of infants
and children. Current issues in the field and their impact
on the developing child will also be highlighted. Students
will be encouraged to investigate and critique recent
research and its application. Three class hours. (SUNY-
SS) Course offered Fall and Spring.
Prerequisite: PSY 101.

PSY 202  Developmental Psychology - Adolescence  3 Credits
A discussion of issues and theoretical perspectives in
the study of adolescence, with particular focus on the
physical, cognitive, and social/emotional changes that
occur during adolescence. This includes the examination
of identity formation, sexuality, family relationships, peer
relationships, and moral development. This course will
also discuss challenges facing adolescents today. Three
class hours. Course offered Fall and Spring.
Prerequisite: PSY 101.

PSY 205  Social Psychology  3 Credits
A scientific study of the influence of people on the
thoughts, feelings, and behaviors of other people.
This course examines how individuals affect and are
affected by others. Topics include impression formation,
conformity and social influence, self-perception,
attitudes, aggression, prejudice, helping, attraction,
group processes, and other components of social
interaction. Three class hours. (SUNY-SS) Course
offered Fall and Spring.
Prerequisites: PSY 101, plus three additional hours in PSY
or SOC.
PSY 206 Abnormal Psychology 3 Credits
Includes a scientific and historical review of the study and treatment of psychopathology, discussion of the major theoretical orientations and the assumptions that underlie them, description of the major DSM disorders including their symptoms, and current treatments. Three class hours. Course offered Fall and Spring.
Prerequisites: PSY 101 with a grade C or higher.

PSY 212 Developmental Psychology - Lifespan 3 Credits
This course is an introduction to the foundations of human development across the lifespan. The course will describe the history and foundational knowledge related to the study of childhood, adolescence, and adulthood, examine the various theories of developmental psychology, and highlight current issues in the field. Three class hours. (SUNY-SS) Course offered Fall and Spring.
Prerequisite: PSY 101.

PSY 215 Cognitive Psychology 3 Credits
How do we think, make decisions, solve problems, perceive our world, and remember our past? What is intelligence, creativity, or awareness? Cognitive psychology explores these complex and important human processes. In this course, students will learn the theories, methods, and concepts of cognitive psychology and apply them to many areas of life. Three class hours. Course offered Fall only.
Prerequisite: PSY 101 with a grade of C or better.

PSY 220 Research Methods in Social Sciences 3 Credits
Through a combination of lecture and hands-on research projects, this course examines the philosophy and methodology of science and how they are applied to social questions. Students plan and conduct research projects and write papers describing their research following APA style. Topics to be explored include experimental and non-experimental research methods, the development of testable hypotheses, and the use of electronic databases to explore and review the scientific literature and ethical issues. Three class hours. (SUNY-SS) Course offered Fall and Spring.
Prerequisite(s): PSY 101 and PSY 108, both with a minimum grade of C. Prerequisite or Co-requisite: MTH 162 or MTH 181.

PSY 222 Social Psychology of the Holocaust 3 Credits
The social and psychological bases for manifestations of and responses to the Holocaust will be used to explore and analyze attitude change, prejudice and discrimination, aggression, cooperative behavior, bystander behavior, and prosocial behavior. The unique historic events that have come to be known as the Holocaust will be used as a vehicle to explore the diverse forms of individual and social behavior that can exist in the midst of dysfunctional social order. Three class hours. (SUNY-SS) Course offered Fall and Spring.

PSY 230 Mysteries of Sleep and Dreaming 3 Credits
This course explores various questions about sleep and dreaming, including why we sleep and why we dream. Topics include how sleep and dreaming are scientifically studied, current theories and research on sleep and dreaming, sleep stages, and the neurological and psychological bases of sleep and dreaming. The course also examines the functions of sleep and dreaming, changes in sleep-wake cycles through the lifespan, various sleep-wake disorders, physical and psychological consequences of sleep deprivation, and healthy sleep practices. The course emphasizes sleep as an active process, vital to optimal physical and psychological health and functioning. Three class hours. Course offered Fall only.
Prerequisite: PSY 101.

PSY 260 Psychology of Health 3 Credits
This course explores the relationship between psychological factors and health issues. Traditional and complementary health care applications will be reviewed and evaluated. How do self-defeating thoughts, negative emotions (such as anxiety, anger, fear) and bad habits diminish health, vitality and longevity? Students will be encouraged to assess their own health patterns. Techniques for modifying lifestyle and managing stress are presented. Three class hours. Course offered Fall and Spring.
Prerequisite: PSY 101.

PSY 261 The Psychology of Learning and Behavior Disorders 3 Credits
This course introduces students to the field of learning and behavior disorders. It is designed for those interested in recognizing and understanding learning disabilities, attention-deficit/hyperactivity, conduct disorders, intellectual disabilities, autism spectrum disorders, emotional disorders, and physical impairments that impact learning. The course will cover biological and psychosocial risk factors, current theoretical approaches to the development of disorders, and education and intervention strategies. Successful completion of the course’s autism unit provides State Education Department certification in Training in the Needs of Students with Autism. Three class hours. Course offered Fall and Spring.
Prerequisite: PSY 101.

QCT - Quality Control Technology

QCT 201 Total Quality Control 3 Credits
Overall aspects of quality control. Considers quality from the overall point of view. Represents the philosophy of quality control, together with concepts of modern day quality control and relationships, manufacturing controls, auditing, and customer relationships. Three class hours. Course offered Fall and Spring.
Prerequisite: QCT 125.

QCT 223 Acceptance Sampling 3 Credits
Presents strategies for construction and evaluation of sampling plans for product and process evaluations and supplier audits. Topics include single, double, multiple and sequential techniques for attributes sampling. Plans used most often in industry are covered (Military Standards, Dodge-Romig, etc.). Supplier verification schemes and quality audits are also discussed. Three class hours. Course offered Fall and Spring.
Prerequisite: QCT 125.

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REA - Reading

REA 100 Reading and Thinking in the Disciplines 3 Credits
This course is designed specifically to meet the reading and thinking needs in a particular discipline. Learning strategies will focus on skills necessary for success in the content course, such as note-taking, graphic or visual materials, and/or laboratory preparation and application. Likewise, critical and active reading performance will focus on the needs of the discipline: understanding and evaluating scholarly research, discipline-based vocabulary, textbook management, reading flexibility, and other higher-level thinking appropriate to the discipline. This course is intended to be taken in conjunction with another course in a different discipline. Please see master schedule for offerings. May not be repeated for credit. Three class hours. Course offered Fall and Spring. ACCUPLACER READING SCORE BETWEEN 71-80.9

REA 101 Critical Reading 3 Credits
This course will help students strengthen their critical reading and thinking skills, improve their academic literacy, and expand their general knowledge across the disciplines, especially the Humanities. Students will read a variety of written, oral, visual, and cultural texts in order to improve their analytical, interpretive, and evaluative skills. Students will synthesize text in all its forms through a variety of thematic approaches (music, drugs, diversity, etc.) in order to develop new ideas and conclusions. They will apply these critical and evaluative skills through research, presentations, discourse, and written assignments. This course is recommended for all students. Three class hours. (SUNY-H). Course offered Fall and Spring. REA 100 grade of C or better, TRS 200 with a grade of C or better, Accuplacer reading comprehension score of 81 or higher.

SBS - Social and Behavioral Sciences

SBS 125 Women’s Issues: The Pursuit of Options 3 Credits
This seminar course is concerned with discussing and assessing the personal and social issues pertaining to women returning to education in today’s world. Students will have an opportunity to review and integrate the cognitive and affective aspects of adult development and relate them to their return to education. Three class hours. (SUNY-SS) Course offered Fall and Spring.

SBS 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

SBS - Honors Studies

SBS 295 Honors Seminar in the Social and Behavioral Sciences-WR 3 Credits
A critical analysis of issues of human adaptation and growth, using social and behavioral science models and concepts. Extensive background reading, personal involvement, and interpretive writing are required of all participants. Social Sciences credit. Three class hours. (SUNY-SS) Course offered Spring only. Prerequisites: Permission of Coordinator of Honors Studies.

SCI - Honors Studies

SCI 295 Honors Seminar in the Natural Sciences 3 Credits
An examination of the major biological, chemical, geological and physical issues and processes related to human influence on the earth and its systems and functions. Students will gain insights through independent research, review of the literature, and an in-depth examination of global, national, and local issues. Natural Science credit. Three class hours. Course offered Fall and Spring. Prerequisites: Permission of Coordinator of Honors Studies.

SCI - Science

SCI 131 Integrated Science for Future Teachers I-The Physical World 4 Credits
This is the first in a sequence of two courses designed to explore the basics of physical science, geological science, chemistry, and biological science in an interdisciplinary, inquiry-based approach for students wishing to pursue a career in childhood education. The physical world focuses on Earth’s physical and geologic processes and how they govern and shape the dynamic world around us. Characteristics of energy, matter, chemical interactions, and electromagnetism are explored, along with the realms of weather, water resources, rocks/minerals, landscape development, and planetary change. Three class hours, three laboratory hours. (SUNY-NS) Course offered Fall and Spring.

SCI 132 Integrated Science for Future Teachers II-The Living World 4 Credits
This is the second in a sequence of two courses designed to teach the basics of physical science, geological science, chemistry, and biological science in an interdisciplinary inquiry-based approach for students wishing to pursue a career in childhood education. This course focuses on concepts in biology and chemistry and how they interact in the world around us. Characteristics of life, cells, reproduction, evolution, ecology, the diversity of plants and animals are covered, along with chemistry concepts such as organic molecules, the chemistry of water, pH, buffering systems and the chemistry of DNA. Three class hours, three laboratory hours. Course offered Fall and Spring.

SCI 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

SCR - Computer Security

SCR 111 Computer-Related Crime and Security 3 Credits
A study of computer crime including use of the computer to commit fraud, embezzlement, theft, pirating of software; theft of new developments in computer hardware and software. Areas of computer vulnerability, as well as physical security, protective, preventive, and investigative procedures will be explored. Statutes to prosecute offenders will be analyzed. Three class hours. Course offered Fall and Spring.

SCR 112 Physical Security of Computer Systems 3 Credits
Study of physical computer security requirements including: location of computer in facility; securing facility and computer from improper, unauthorized, or illegal access; hazardous conditions; industrial and foreign espionage or sabotage; bombs and bomb threats; arson; securing electrical and telecommunications systems; camera and other surveillance techniques; backup records and their security; natural disaster controls. Three class hours. Course offered Fall and Spring.

SCR 151 Introduction to Computer Security 3 Credits
A study of the functions of industrial security forces in protecting industry, retail businesses, and educational institutions, emphasizing relationships between private security agencies and public law enforcement organizations. Consideration of organizational structure, authority, and responsibilities of security forces. Fall semester only. Three class hours. (Open to any student when seats are available after all Criminal Justice students have registered.) Course offered Fall and Spring.
SGT 101 Surgical Pharmacology and Anesthesia 2 Credits
This course provides a study of pharmacetics used in surgery. The actions, usage and side effects of commonly administered medications and solutions and the methods by which they are administered are presented. Computation of medication doses and solution composition is introduced. Two class hours. Course offered Spring only.
Prerequisite(s): SGT 100 with a grade of C or better, SGT 110 with a grade of C or better, BIO 144 with a grade of C or better, HIM 104, and MTH 165 or higher.

Co-requisite(s): PHL 250, BIO 145, ENG 101 or ENG 200, and SGT 102.

SGT 102 Principles and Practices in Surgical Technology 5 Credits
This course continues to demonstrate the various functions of the surgical technologist. Emphasis is on safety in the operating room, care of specimens and instrumentation and equipment used in surgical procedures. Methods used for closure of wounds and mechanisms of wound healing are presented. Emphasis on sterilization and disinfection principles and procedures is continued. Selected laboratory experiences. Three class hours, four laboratory hours. Laboratory fees apply. Course offered Spring only.
Prerequisite(s): BIO 144 with a grade of C or better, MTH 165 or higher, HIM 104, SGT 100 with a grade of C or better, and SGT 110 with a grade of C or better.

Co-requisite(s): BIO 145, ENG 101 or ENG 200, PHL 250, and SGT 101.

SGT 110 Foundations of Surgical Technology 1 Credit
This course introduces the roles of the various surgical team members and orients students to the basic organization of healthcare facilities. Interpersonal relationships, communication and teamwork, and ethical standards of conduct are emphasized. Responsibilities of scrub, circulating and second assisting surgical technologists are explored. One class hour. Course offered Fall only.

SGT 201 Surgical Procedures 10 Credits
This course presents orientation to specific surgical procedures including general surgery, obstetrics and gynecologic surgery, genitourinary surgery, ENT/oto nasal oraryngology surgery and orthopedic surgery with related surgical anatomy and pathophysiology and specialty instrumentation. Safe use of lasers and robotics is introduced. Computer skills necessary for the operating room are explored. Clinical practice will employ intermediate surgical interventions. Current CPR certification for the professional rescuer is required. Three class hours, two laboratory hours, eighteen clinical hours. Laboratory fees apply. Current CPR certification for the professional rescuer is required. Three class hours, two laboratory hours, eighteen clinical hours. Course offered Spring only.
Prerequisite(s): BIO 235 and PSY 101 and SGT 201, all with a grade of C or better.

Co-requisite(s): SGT 210

SGT 210 Professional Issues and Certification for Surgical Technology 2 Credits
This course emphasizes professional and legal issues and approaches to patient care through use of perioperative case management. Job seeking skills are explored. The All Hazards framework for disaster planning and management is presented. Preparation for the surgical technologist certification exam is initiated. Two class hours. Course offered Spring only.
Prerequisite(s): BIO 235 with a grade of C or better, and SGT 201 with a grade of C or better.

SMT - Sports Management

SMT 201 Cooperative Education - Sport Management 3 Credits
This course is designed to provide students with opportunity to test his or her career choice by working in a for-profit or non-for-profit setting leading toward a career, in Sport Management. Having studied theories and principles in previous course work, the intern will be able to use the knowledge gained in an actual work environment. These opportunities can include: marketing, event management, administration, communication, sales, promotion, negotiation, and facility management. The student will be responsible for working a minimum of 12 hours per week throughout the 15-week semester. Enrollment in this course is only with departmental permission. One class hour, one hundred eighty experiential hours. Course offered Fall and Spring.
Prerequisite(s): By department permission only

110 Co-requisite(s): BIO 144, MTH 165 or higher, HIM 104, SGT 110
110 with a grade of C or better.

Prerequisite(s): By department permission only
SMT 217  Sport Marketing  3 Credits
The course focuses on the theoretical backbone that makes sport marketing such a unique and vibrant subject and focuses on marketing in a sport-specific context. Students will learn how to build a sport marketing plan, study the behaviors of sport consumers, and gain an understanding of market segmentation and pricing. Exploration of promotion, sales, distribution, and public relations in sport are key aspects of the course. Three class hours. Course offered Fall and Spring.

SOC - Sociology

SOC 101  Introduction to Sociology - WR 3 Credits
A survey of the major concepts employed in the systematic study of human relationships, with emphasis on society, culture, social interaction, socialization, groups, bureaucracy, institutions, collective behavior, social stratification, social control, social change and sociology as a field of knowledge. Three class hours. (SUNY-SS) Course offered Fall and Spring.

SOC 102  Social Problems- WR 3 Credits
An analysis of major social problems in contemporary society, their nature, development and social causes. The course examines the impact of problems such as poverty, crime, drug addiction and prejudice on the individual and society. Possible solutions for social problems are discussed. Three class hours. (SUNY-SS) Course offered Fall and Spring.

SOC 201  Sociology of Race and Ethnicity - WR 3 Credits
This course explores the relationships between majority and minority populations in the United States. We will begin to understand the concepts of race and ethnicity not as static, but as changing phenomena. What is the nature of American identity? What are the social structural causes of inequality? This course will provide a sociological perspective centered on questions of race, identity and inter-group relations. We will explore such topics as the nature of prejudice and racism, policies affecting minorities, the social construction of race and immigration to the United States. Three class hours. (SUNY-SS) Course offered Fall and Spring.

SOC 202  Urban Sociology - WR 3 Credits
This course focuses on the social, political, economic, and cultural factors associated with development of urban communities, the characteristics of urban institutions, trends in urban planning, ecological processes, and the effects upon urban communities of development and migration. Three class hours. (SUNY-SS) Course offered Fall and Spring.

Prerequisite: SOC 101

SOC 203  Criminology - WR 3 Credits
The course emphasizes the historical and contemporary theories of crime causation. Problems involving attempts to develop a scientific and objective approach to the phenomena of crime are analyzed. Issues such as the role of law, the political and economic institutions and the social structure which generate crime are investigated. Three class hours. (SUNY-SS) Course offered Fall and Spring.

Prerequisite(s): SOC 101 or SOC 102

SOC 204  Sociology of the Family - WR 3 Credits
A sociological analysis of the family as a social institution: its origin, structure and variations; and patterns of intimate relationships. Examines family organization and disorganization through analysis of mate selection, sexuality, gender and family roles, marriage and divorce, parenthood, and the diversity of family composition. Investigates key concerns for contemporary American families including communication and power, the balance of work and family obligations, the impact of social change, and current social policy issues. Three class hours. Course offered Fall and Spring.

Prerequisite: SOC 101

SOC 205  African-American Family - WR 3 Credits
A comprehensive examination of the diverse and complex issues surrounding the African-American family unit as it has evolved from pre-slavery to contemporary period. It focuses on historical, social, cultural, political, economic and global conditions that have affected that institution. The course discusses key issues, themes and debates in the field and analyzes a variety of theoretical perspectives of examining the African-American family life. Three class hours. Course offered Spring only.

Prerequisite: SOC 101

SOC 206  Sociology of Gender and Sexuality - WR 3 Credits
This course introduces students to the sociological study of gender and sexuality in contemporary U.S. society by examining the ways in which each are socially constructed. The role of gender and sexuality in institutional structures, including the economy, law, education and media will be examined. Historical and cross-cultural variations in gender and sexuality are explored as well as variations by race, ethnicity, and social class. Sociological theory and research will be used to provide analysis for systems of inequality as well as how the meanings and experiences of gender and sexuality have changed over time. Three class hours. Course offered Fall and Spring.

Prerequisite: SOC 101

SOC 207  Sex and Gender - WR 3 Credits
This course introduces students to the sociological study of gender and sexuality in contemporary U.S. society by examining the ways in which each are socially constructed. The role of gender and sexuality in institutional structures, including the economy, law, education and media will be examined. Historical and cross-cultural variations in gender and sexuality are explored as well as variations by race, ethnicity, and social class. Sociological theory and research will be used to provide analysis for systems of inequality as well as how the meanings and experiences of gender and sexuality have changed over time. Three class hours. Course offered Fall and Spring.

Prerequisite: SOC 101

SOC 208  Social Inequality - WR 3 Credits
A comprehensive examination of social inequality and the social structure which generate it. The course focuses on historical, social, cultural, political, economic and global conditions that have affected that institution. The course discusses key issues, themes and debates in the field and analyzes a variety of theoretical perspectives on examining the African-American family life. Three class hours. Course offered Spring only.

Prerequisite: SOC 101

SOC 209  Environmental Sociology - WR 3 Credits
An introduction to the key theoretical approaches and research within the emerging field of environmental sociology, and an examination of the ongoing research on how environmental problems have roots in social processes, such as culture, community, social inequality, social organization and social structure. Students will examine how human values about the environment and the relationships between humans and our physical environment are socially constructed. Students will develop a working knowledge of sociological research methods and theoretical perspectives in their analyses of the relationship between human societies and the physical environment. Course offered Fall, Spring and Summer. Three class hours.

Prerequisite: SOC 101

SOC 210  Global Interdependence - WR (formerly SOC 150) 3 Credits
Individuals, local communities, business enterprises, and nation-states are today inextricably involved in and affected by global relationships. This course provides an overview of the emergence and characteristics of global, social, economic, political, and ecological interdependence, particularly as these developments are affected by rapid social and technological change. In analyzing global problems, students evaluate conventional interpretations, refine analytical frameworks, and consider alternative strategies for coping with planetary issues. Students also assess their individual needs in the context of human survival and global interdependence. Three class hours. (SUNY-OWC) Course offered Fall and Spring.

Prerequisite: SOC 101.

SOC 211  Sociology of Work - WR 3 Credits
This course applies sociological research to a study of what it means to be a worker and how work has evolved historically. This course also investigates the impact of structural inequality on workers as it relates to race, age, gender and the institution of the family. Three class hours. (SUNY-SS) Course offered Spring only.

Prerequisite: SOC 101

SOC 216  Special Topics in Sociology - WR 3 Credits
This course is designed to address specific topics of interest in sociology. Offerings are more specific and focused than the introductory surveys. Examples of potential offerings could include Sociology of the Body, Sociology of Deviance, or Sociology of Pop Culture. Topics may change from semester to semester based on faculty and student interest. The classes will be primarily lecture and discussion based. Three class hours. Course offered Fall and Spring.

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Course Descriptions

SOC 220 Sociology Internship - WR 3 Credits
A learning experience in a selected community agency or organization determined by the student's area of interest. Under supervision, the student will be able to apply sociological methods and principles in a practical setting, become aware of social processes and community needs, or conduct research. Ten class hours per semester, one hundred thirty-five internship hours. Course offered Fall and Spring. Prerequisites: One other Sociology course and permission of instructor.

SOC 290 Independent Study - WR Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

SPA - Spanish/Foreign Language

SPA 101 Elementary Spanish I 3 Credits
Designed for students with no previous experience in the language. Focusses on communicative skills of listening comprehension, speaking, reading, and writing. Includes high frequency vocabulary, basic constructions, common phrases, and cultural aspects. Also stresses student participation in skills development. SPA 111 is strongly recommended for improving comprehension and oral fluency especially for students transferring to a four-year institution. Three class hours. (SUNY-FL) Course offered Fall and Spring.

SPA 102 Elementary Spanish II 3 Credits
Continuation of SPA 101 with emphasis on basic language skills for communication and on cultural aspects to promote understanding and appreciation of Hispanic cultures. A companion course, SPA 112, is strongly recommended for improving comprehension and oral fluency, especially for students transferring to a four-year institution. Three class hours. (SUNY-FL) Course offered Fall and Spring. Prerequisite: SPA 101 or successful completion of the New York State Regents exam, the equivalent or permission of the instructor. Memory and length of time since last studied are factors in successful placement.

SPA 103 Intermediate Spanish I 3 Credits
Continued study in Spanish for those with a firm foundation in elementary Spanish communication, written and oral. Grammar and vocabulary are continued at a higher level. Cultural topics are included in the study of grammar and structure. A companion course, SPA 113, is strongly recommended for improving comprehension and oral fluency, especially for students transferring to four-year institutions. Memory and length of time since last studied are factors in successful placement. Three class hours. (SUNY-FL) Course offered Fall and Spring. Prerequisite: SPA 102; or successful completion of high school Spanish 4, the equivalent, or permission of the instructor.

SPA 104 Intermediate Spanish II 3 Credits
Continued study in Spanish for those with a firm foundation in intermediate Spanish through written and oral communication. Grammar and vocabulary are continued at a higher level. Cultural topics are included in the study of grammar and structure. A companion course, SPA 114, is strongly recommended for improving oral fluency, especially for students transferring to four-year institutions. Memory and length of time since last studied are factors in successful placement. Three class hours. (SUNY-FL) Course offered Fall and Spring. Prerequisite: SPA 103, or excellence in high school Spanish 5, the equivalent, or permission of the instructor.

SPA 110 Accelerated Elementary Spanish 6 Credits
Designed for students with no previous experience in the language who wish to move at a faster pace than is permitted by SPA 101 and SPA 102 courses, or for those who have taken one or more years of Spanish previously and wish to review and practice basic Spanish at a quickened pace. Focuses on communicative skills of listening comprehension, speaking, reading and writing. Includes high frequency vocabulary, basic constructions, common phrases and cultural aspects. Also stresses student participation in skills development. A companion course, SPA 111, is strongly recommended for improving comprehension and oral fluency, especially for students transferring to a four-year institution. Six class hours. (SUNY-FL) Course offered Fall and Spring.

SPA 111 Elementary Spanish Conversation I 2 Credits
This is an introductory level one conversation course designed for those who wish to focus on learning comprehension and conversational skills. Spoken Spanish used in context by a variety of native speakers will provide comprehension practice. Using video, music and songs, audio cassettes and CD-ROM, as well as Internet, students will hear and use authentic language structures used in simple forms of Spanish for communication. Students will be evaluated on their linguistic achievement, their aural comprehension and conversational competence at this introductory level. Two class hours. Course offered Fall and Spring. Prerequisites: SPA 101 taken concurrently, one year of language study or permission of instructor.

SPA 112 Elementary Spanish Conversation II 2 Credits
This is an introductory level two conversation course designed for those who wish to focus on learning comprehension and conversational skills. Spoken Spanish used in context by a variety of native speakers will provide comprehension practice. Using video, music and songs, audio cassettes and CD-ROM, as well as Internet, students will hear and use authentic language structures used in simple forms of Spanish for communication. Students will be evaluated on their linguistic achievement and performance, their level of aural comprehension and conversational competence at this introductory level. Two class hours. Course offered Fall and Spring. Prerequisites: SPA 102 taken concurrently, one to two years of previous language study or permission of instructor.

SPA 113 Intermediate Spanish Conversation I 2 Credits
A communicative approach to develop comprehension of the spoken language and ability to communicate with native speakers at the beginning intermediate level. Spanish spoken by native speakers from Spain and Latin America will be used to train students for real life communication appropriate for social and career related situations. To develop linguistic skills, intensive training in comprehension and communication will be enhanced by the use of videos, music and songs, audio cassettes and CD-ROM, as well as Internet. Language structures will be practiced in context using related text materials and culture, as well as topics of interest such as current events. Students will be evaluated on their linguistic achievement and performance, their level of aural comprehension and conversational competence at this intermediate level of communication. Two class hours. Course offered Fall only. Prerequisites: SPA 103 taken concurrently, two to four years of previous language study or permission of instructor.

SPA 114 Intermediate Spanish Conversation II 2 Credits
A communicative approach to develop comprehension of the spoken language and ability to communicate with native speakers at this intermediate level. Spanish spoken by native speakers from Spain and Latin America will be used to train students for real life communication appropriate for social and career related situations. To develop linguistic skills, intensive training in comprehension and communication will be enhanced by the use of videos, music and songs, audio cassettes and CD-ROM, as well as Internet. Language structures will be practiced in context using related text materials and culture, as well as topics of interest such as current events. Students will be evaluated on their linguistic achievement and performance, their level of aural comprehension and conversational competence at this intermediate level of communication. Two class hours. Course offered Fall only. Prerequisites: SPA 104 taken concurrently; three or more years of previous language study or permission of instructor.

SPA 141 Spanish for the Health Professions 3 Credits
This course is designed for those in the health professions who wish to acquire the basic tools for effective communication with the Hispanic client. The language is taught in the context of specific situations with extensive practice and a minimal amount of grammar. The course also contains an important cultural component that will allow the student to gain a greater
knowledge and understanding of Hispanics, and thus to create a better, safer, and productive environment. Three class hours. Course offered Fall and Spring.

SPA 201 Espana de ayer y de hoy 3 Credits
Through interactive lectures, video and use of the Internet, students will gain an overview of contemporary Spain, the country and peoples viewed from historical and cultural perspectives. Use of the video series El espejo enterrado (The Buried Mirror) provides the student with the opportunity to develop aural skills to an advanced level. The internet will be used to access on-line newspapers, magazines, and a vast array of primary source materials to help develop reading skills and knowledge of specialized vocabulary, while engaging the student in a study of current events. This combination will guide the student to a working knowledge of Spain and to improved language comprehension and fluency. Three class hours. Course offered Fall and Spring. Prerequisite: SPA 104, or a grade of B or better in high school Spanish 5, or permission of the instructor.

SPA 202 Latinoamerica de ayer y de hoy 3 Credits
Through interactive lectures, video and use of the Internet, students will gain an overview of contemporary Latin America, the countries and peoples viewed from historical and cultural perspectives. Use of the video series El espejo enterrado (The Buried Mirror) provides the student with the opportunity to develop aural skills to an advanced level. The internet will be used to access on-line newspapers, magazines, and a vast array of primary source materials to help develop reading skills and knowledge of specialized vocabulary, while engaging the student in a study of current events. This combination will guide the student to a working knowledge of Latin America and to improved language comprehension and fluency. Three class hours. Course offered Fall and Spring. Prerequisite: SPA 104, or a grade of B or better in high school Spanish 5, or permission of the instructor.

SPA 205 Advanced Conversational Spanish I 3 Credits
Intensive practice in oral communication at an advanced level. Current trends in spoken Spanish as expressed in contemporary situations. Three class hours. Course offered Fall and Spring. Prerequisite: SPA 104, or a grade of B or better in high school Spanish 5, or permission of the instructor.

SPA 206 Advanced Conversational Spanish II 3 Credits
Continuation of SPA 205. Three class hours. Course offered Fall and Spring. Prerequisite: SPA 205 or SPA 104, or four years of high school Spanish or equivalent.

SPA 207 Cinema for Spanish Conversation 3 Credits
In this course, students will improve their Spanish conversational skills through the discussion of films in Spanish. Student presentations will help the student improve their public speaking skills. In addition, the students will improve their listening comprehension through exposure to native speech. The films will introduce students to culture, some history, vernacular speech and regional accents. This course offers a new and different vision of language learning and use. The films serve as a catalyst for thought provoking cultural and linguistic examination. This offers the student the ability to express themselves and to expose themselves to the diversity of cultures in the many Spanish speaking countries. The students will broaden their knowledge and analyze, compare and enrich their vocabulary and hone their analytic and critical thinking skills through their enhancement, solidification of the knowledge of the language, and its variety of uses. Three class hours. (SUNY-FL) Course offered Fall and Spring. Prerequisite: SPA 104, or a grade of B or better in high school Spanish 5, the equivalent, or permission of the instructor.

SPA 221 Hispanic Culture On Location 3 Credits
This course is designed to provide the opportunity to see and experience the richness of a Spanish speaking country through the unique experience of travel. The core part of this course will be a stay in the country, with visits to the main cities and cultural centers. Class meetings prior to the trip will focus on topics that will help the student to prepare for the experience, and meetings after the trip will provide a time for debriefing, reporting, evaluation and assimilation. The student is expected to complete ten tasks during his/her stay, make an oral presentation, and prepare a portfolio of the trip. This portfolio can be a personal journal, photo display, video recording, or a combination thereof. Three class hours. Course offered Fall and Spring. Prerequisite: SPA 104, or a grade of B or better in high school Spanish 5, or permission of the instructor.

SPA 219 Storytelling 3 Credits
Study of and practice in storytelling that will focus on stories appropriate for modern society. Storytelling is an art that requires the practice of craft-based techniques. Focus will be placed on story and character development, performance of a variety of stories, and evaluation of what makes a good story and its performance. Three class hours. (SUNY-A) Course offered Fall and Spring.

SPA 119 Storytelling 3 Credits
A survey of the major concepts of speech communication. This course will provide an introduction to interpersonal skills (perception, listening, verbal and nonverbal communication); public speaking (organization, delivery and basic speech writing); and small group communication (leadership, assertiveness and listening). Emphasis is on the application of these basic concepts in the personal, academic and professional lives of students. Three class hours. Course offered Fall and Spring.

SPC 141 Interpersonal Speech Communication 3 Credits
The focus of this course is to help students understand, evaluate, and improve their interactions with others in their personal and professional lives. Theory and practical skills include issues in listening, conflict resolution, assertiveness, and non-verbal communication. Emphasis is on the application of these and other communication skills to the daily lives of the class members. Three class hours. (SUNY-H) Course offered Fall and Spring.

SPC 142 Public Speaking (formerly SPT 142) 3 Credits
Primarily concerned with the source and substance of ideas, evidence, and reasoning that form the basis for good oral communication. Students will develop and present original speeches applying these ideas and the principles of organization, clarity, vitality, and ethics. When speaking, students will learn effective ways to use voice and body language to communicate a message. Three class hours. Course offered Fall and Spring.

SPC 143 Small Group Communication 3 Credits
Small group theory and process is examined from a communication perspective. Topics include leadership, goal setting, decision making, conflict, and the stages of group development. Students participate in groups. Three class hours. Course offered Fall and Spring.

SPC 144 Communication and Crisis 3 Credits
This course combines theories of communication and concepts of crisis necessary for dealing appropriately with people in crisis. Topics covered include practical skills: listening and responding, communicating assertively, managing conflict, and how these skills can be used to help people who are dealing with loss, grief, depression, and suicidal ideation. The on-line version of this course requires access to a camcorder. Three class hours. (SUNY-H) Course offered Fall and Spring.

SPC 172 Honors - Competitive Public Speaking-WR 1 Credit
Students will work collaboratively with the instructor and classmates to develop skills for competition-style speaking through the practice and performance of an original speech. One speech will be developed, presented, critiqued and improved during class rehearsals. Students will learn through hands-on experience the in-depth effort required for professional and competitive public speaking. One and a half class hours.
hours per week for last seven weeks of the Spring Semester, and one five-hour speech contest. Course offered Spring only.
Prerequisite: Audition and/or permission of the instructor and enrollment in SPT 142 or SPC 142 (formerly SPT 142).

SPC 241 Advanced Interpersonal Communication 3 Credits
This course will provide students the chance to analyze their interpersonal communication skills and further expand competency through application in personal and professional life situations. Students will examine the impact of technology, gender, nonverbal, and cultural diversity on communication in families, with friends and romantic partners, and in their professional lives. Interpersonal skills will be integrated into the interviewing process and conflict resolution. A portfolio will be developed that reflects the self-examination and adjustment of interpersonal skills in personal and professional relationships. Three class hours. Course offered Fall and Spring. 
Prerequisite SPC 141

SPC 242 Speaking in Professional Situations 3 Credits
This course enables students to build on the basics of organization, vocal variety and body language learned in SPC 142. Students will apply these basic skills to a variety of professional speaking opportunities, including persuasive speaking, using technology to support speech purpose, forming and supporting arguments, and more. The skills developed in this course are immediately transferable to professional settings. Three class hours. Course offered Fall and Spring.
Prerequisite: SPC142 or permission of instructor.

SPC 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

STT 101 Introduction to Solar Thermal Technology 3 Credits
This course covers history of solar thermal technology and related topics. Additionally, the basic principles of solar thermal systems will be covered. Students will be introduced to the components of a solar thermal system including collectors, heat transfer devices, and related hydronic components. Three class hours. Course offered Spring only.

STT 102 Solar Thermal Installations 3 Credits
This course will explore the pertinent plumbing codes, components of OSHA fall protection, roof structures, proper piping practices, and proper installation of solar components and solar systems. The course will also review basic crane direction. Two class hours, two lab hours. Course offered Fall and Spring. 
Prerequisite: STT 101

STT 201 Troubleshooting and Preventative Maintenance for Solar Thermal Systems, with Lab/Field Experiences 3 Credits
The course will explore issues related to system design, performance, and efficiency. System operation, symptom diagnosis, repair, and maintenance will be covered. Students will work on the laboratory or field installed systems. Two class hours, two lab hours. Course offered Fall and Spring.
Prerequisites: STT 101, STT 102

SUS - Sustainability Studies

SUS 101 Introduction to Sustainability 3 Credits
This course will provide an overview of the social, environmental, and economic aspects of sustainability. Students will consider the development of industrial society and examine key trends and events in the history of conservation and environmental reform in order to better understand current social, environmental, and economic problems. Students will evaluate the long-term sustainability of current systems and practices, and propose a solution to a current problem that balances economic, environmental, and social interests. Three class hours. Course offered Fall and Spring.

SUS 206 Special Topics in Sustainability Seminar 3 Credits
An interdisciplinary seminar course concerned with current problems and innovations in sustainability. Possible course topics include water quality/availability, fossil fuels, food production/security, and community design. Students will read and discuss a variety of texts on the course topic, and will develop a substantial research project. Three class hours. Course offered Fall and Spring.

SUS 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

SVL - Service Learning

SVL 101 Service-Learning Seminar 3 Credits
This course is designed for students to identify and analyze a socially significant need facing the local community and develop and implement a plan to address such a need. Students will examine why this need exists and identify areas of strength to apply to the issue. The course will cover such topics as ethical implications of service, citizenship development, motivation to serve, global issues of service and more. Students will complete critical reflection assignments and exercises that strengthen problem-solving and leadership skills while developing connections with people of diverse cultures and lifestyles. Service-learners are required to serve 135 hours over the course of the semester. This course fulfills the MCC requirement for a social science elective. Course offered Fall and Spring.

SVL 106 Topics in Service-Learning 1 Credit
This course is designed to cover service-learning topics of special interest. Offerings will vary each semester, but each course is intended to increase students awareness of social issues within our community related to the course topic. Students will participate in service projects that meet the needs of the community and are integrated into the curriculum of the course (30 service hours). Students will participate in structured critical reflection seminars where they will analyze and evaluate their service experiences and make essential connections between civic engagement and course curriculum. This course fulfills the MCC requirements for a social science elective. Course offered Fall and Spring.

SVL 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

TAM - Tooling and Machining

TAM 101 Machine Theory I 3 Credits
A survey course of basic machine theory. Examines the types, operation, and usage of common machines and machine tools. Covered are the lathe, milling machine, surface grinders, bench tools, and measurement and layout tools. Focus is upon machine operations of cutting, turning, drilling, sawing, and grinding. Three class hours. Course offered Fall and Spring.

TAM 105 Machine Project Laboratory 3 Credits
This course will provide students with the opportunity to apply knowledge and develop machine operation skills through the creation of a variety of projects. The student will be required to demonstrate skill proficiency by completing the following machine shop projects: three
TAM 115 Principles of Metallurgy 3 Credits
Covers the basic principles of metallurgy and how they relate to the strength and hardening processes of steels, tool steels, and other alloys. Topics covered include steel production, steel testing and pyrometry, alloy theory, heat treatment, surface treatments, and steel types. Three class hours. Course offered Fall and Spring.

TAM 121 Mathematics for Machinists I 3 Credits
A basic mathematics course for beginning machinists. It is designed to acquaint the entry-level tooling and machining student with the mathematical concepts, terms, and formulas required to function as a machinist. The emphasis of the course is upon application of mathematical principles to the machine trades and developing mathematical/mechanical problem solving skills. Three class hours. Course offered Fall and Spring.

TAM 122 Mathematics for Machinists II 3 Credits
An advanced mathematics course for machinists. This course builds upon mathematical concepts and skills gained in mathematics for machinists. The students will learn how mathematics is applied in mechanisms and fixtures. The focus is upon those mathematical and shape related applications necessary for design, layout and machining accurate parts. Three class hours. Course offered Fall and Spring.

TAM 131 Machine Shop Print Reading I 3 Credits
The objective of this course is to develop an understanding of both simple and complex parts and the mechanisms, graphically described on blueprints. To differentiate between the various line types, multi-view representation and determination if key dimensions involving the given tolerances. The student will be able to develop the ability to visualize a completed part from a drawing. Three class hours. Course offered Fall and Spring.

TAM 132 Machine Shop Print Reading II 3 Credits
Students will be able to solve complex blueprint problems related to tool and shop applications. Section views, surface textures, screw threads, geometric tolerancing, steel identification, fasteners, castings, and coatings will be examined. Three class hours. Course offered Fall and Spring.

TAM 138 Dimensional Metrology 3 Credits
In this course the student will become familiar with skills needed to perform parts inspection. The course will provide hands on experience with semi-precise and precision measurement using a variety of instruments such as specialty micrometers, bore gages, universal bevel protractors and plug gages, optical comparators and coordinate measurement machines. Three class hours. Course offered Fall and Spring.

TAM 139 CNC Vertical Machine Tool Programming I 3 Credits
Basic understanding of the fundamental concepts and principles of computer numerical controlled machining and programming is the objective of this course. Students will study the CNC applications of common machines, the applications of appropriate mathematics to these machines, and basic programming processes and techniques. Students will be able to write a simple program. Three class hours. Course offered Fall and Spring.
Prerequisites: TAM 101, TAM 121, TAM 131, AND TAM 105 OR TAM 141.

TAM 141 Machine Shop Laboratory 3 Credits
Application of the fundamental concepts and processes covered in basic machine theory. Through creation of a series of machine parts, students will acquire basic tooling and machining skills. They will be required to layout and machine parts through use of the lathe, milling machine, drill press, and other machine and bench tools. Three class hours. Course offered Fall and Spring.
Corequisite: TAM 101.

TAM 142 CNC Mill Set-up 3 Credits
Students will apply Computer Numerical Control (CNC) operating, set-up, and minor programming skills to produce components to specifications on various types of CNC milling equipment. There will be demonstrations and short student projects. Three class hours. Course offered Fall and Spring.
Prerequisites: TAM 101, TAM 121, AND TAM 131; Corequisite: TAM 139.

TAM 143 CNC Lathe Set-up 3 Credits
The student will learn the basics about Computer Numerical Control (CNC) lathes, understanding part programs, operator skills, basic set-up skills, and advanced set-up skills. Students will use a variety of instructional media to learn the concepts of CNC. Three class hours. Course offered Fall only.
Prerequisites: TAM 101, TAM 121, AND TAM 131; Corequisite: TAM 139.

TAM 151 Geometric Dimensioning and Tolerancing for Machinists 3 Credits
Features interpretation of engineering drawings relative to the application of G.D. & T., the effect on manufacturing methods, verification procedures, and a comparison to and conversion to the coordinate system. Topics include G.D. & T. terms and symbols, true positioning concepts and assembly applications, angularity, parallelism, perpendicularity, datum axes, counterplanes, and actual geometric conditions and locations. Three class hours. Course offered Fall and Spring.
Prerequisite: TAM 131.

TAM 153 Mechanical Design and Prototyping 4 Credits
An introduction to solid modeling, computer aided manufacturing, the engineering design process, and machine shop operations. Students will use SolidWorks software to design parts and assemblies. CamWorks software will be used to create tool paths for common 2.5 axis milling operations. Prototyping will be done using manual and CNC mills, lathes, and a 3D printer. Parametric modeling techniques that preserve design intent with dimensioning, geometric relations, external references, equations, and design tables will be emphasized. A design-build project will require students to build a working prototype to the instructor’s specifications and then implement a redesign of it. Students will document their design process in both written and oral reports. Three class hours, three laboratory hours. Course offered Fall and Spring.

TAM 155 Tool and Fixture Design 3 Credits
The students will learn the basics of jig and fixture design. The types, functions and classifications of fixtures will be reviewed. Design economics will be explored and applied. There will be a complete review of different tool types including fixture plates, plate jigs, angle plate fixtures, channel, box, and vise jaw fixtures. Students will design and sketch various tools to demonstrate understanding. Three class hours. Course offered Spring only.
Prerequisites: TAM 101, TAM 141.

TAM 171 Machine Trades Apprentice Training I 3 Credits
This is the first year course of the students Machine Trades Apprentice on-the-job training experience. The course covers a minimum of 2,000 hours of on-site training delivered in accordance with the Department of Labor and other structured apprenticeship training program requirements for Machine Trades Apprentices. Three class hours. Course offered Fall and Spring.

TAM 172 Machine Trades Apprentice Training II 3 Credits
This is the second year of the students Machine Trades Apprenticeship on-the-job training experience. The course covers a minimum of 2,000 hours of on-site training delivered in accordance with the Department of Labor and other structured apprenticeship training program requirements for Machine Trades Apprentices. Three class hours. Course offered Fall and Spring.
Prerequisite: TAM 171.
TAM 173  Machine Trades Apprentice Training III  3 Credits
This is the third year of the students Machine Trades Apprenticeship on-the-job training experience. The course covers a minimum of 2,000 hours of on-site training delivered in accordance with the Department of Labor and other structured apprenticeship training program requirements for Machine Trades Apprentices. Three class hours. Course offered Fall and Spring. Prerequisite: TAM 172

TAM 174  Machine Trades Apprentice Training IV  3 Credits
This is the fourth year of the students Machine Trades Apprenticeship on-the-job training experience. The course covers a minimum of 2,000 hours of on-site training delivered in accordance with the Department of Labor and other structured apprenticeship training program requirements for Machine Trades Apprentices. Three class hours. Course offered Fall and Spring. Prerequisite: TAM 173

TAM 205  CNC Machining Project Laboratory  2 Credits
The students will apply CNC operating, set-up, and programming skills on various types of CNC equipment. It will involve writing part programs, setting up the machines and producing parts to specifications. Debugging, troubleshooting and program improvements will be required. This course is offered during the day schedule only. Six laboratory hours. Course offered Fall and Spring. Prerequisites: TAM 101, TAM 121 AND EITHER TAM 105 OR TAM 141; Corequisite: TAM 139.

TAM 241  Advanced Machine Shop Laboratory  3 Credits
Designed as an opportunity for further enhancement of skills developed in TAM 141. Emphasis is placed on developing high level skills to accomplish complex and precision machining operations. Advanced topics include precision layout and tools, quality control, and precision machine processes. Three class hours. Course offered Spring only. Prerequisites: TAM 101, TAM 141.

TAM 242  Machine Shop Practice IV  3 Credits
Intended for experienced machinists, this course will enable students to develop skills to build high precision tooling from advanced engineering drawings. Traditional and CNC machines will be utilized to create tools, dies, and fixtures that are extremely precise and have close fits and tolerances. Three class hours. Course offered Fall and Spring. Prerequisites: TAM 101, TAM 141, TAM 241.

TAM 245  Computer Aided Manufacturing  3 Credits
This course teaches the basics of computer aided manufacturing. Students will be able to create part drawings, select tooling needed to manufacture the part, and generate the tool paths. They will be able to verify tool paths, post process paths for various controllers, and edit the tool path output. This will be done through a series of projects and lab exercises. Three class hours. Course offered Fall and Spring. Prerequisite(s): TAM 101, TAM 123, TAM 132, TAM 139, and TAM 142 or 143; corequisite: TAM 255.

TAM 246  Computer Aided Manufacturing  2 Credits
Building on the basic skills learned in TAM 245, this course expands the student’s skills in the areas of tool path modifications, program verification, advanced contouring, and advanced pocketing. Three class hours. Course offered Fall and Spring. Prerequisite: TAM 245.

TAM 251  Statistical Process Control for Machinists  3 Credits
An applied statistical process control course for the worker involved in precision parts manufacture. Included in this course is the rationale/need for SPC, Deming philosophy, XBar and range charts, histograms, capability calculations, and attribute charts. Automatic data collection will be done on a Genesis statistical process control data collector and analyzer machine. Three class hours. Course offered Fall and Spring. Prerequisites: TAM 101, TAM 121, TAM 131, TAM 141.

TAM 255  Computer Aided Manufacturing Laboratory  3 Credits
Students will apply the work developed in TAM 245. This will involve the setup and operation of various CNC equipment to manufacture parts. Vertical machining centers, CNC lathe, and EDM equipment could be used in this laboratory. Tooling problems, material differences, and program editing and revisions will be included in this course. The goal is to have complete support documents with the accurate manufactured parts. Six laboratory hours. Course offered Fall only. Prerequisite(s): TAM 139, TAM 142, TAM 155, TAM 241 and TAM 245.

TAM 290  Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

TAM 251  Statistical Process Control for Machinists  3 Credits
An applied statistical process control course for the worker involved in precision parts manufacture. Included in this course is the rationale/need for SPC, Deming philosophy, XBar and range charts, histograms, capability calculations, and attribute charts. Automatic data collection will be done on a Genesis statistical process control data collector and analyzer machine. Three class hours. Course offered Fall and Spring. Prerequisites: TAM 101, TAM 121, TAM 131, TAM 141.

TEK 100  Introduction to Engineering Technology Concepts  3 Credits
The student will explore the roles of the various members of the engineering team. Particular emphasis will be placed upon the role and tasks of the engineering technician. An introduction and description of each of the major technical fields will be provided. An extended review of the problem solving and graphic techniques common to all engineering technologies will be included. This review will emphasize mastery of the mathematical operations required. Three class hours. Course offered Fall and Spring.

TEK 101  Computer Applications for Technicians  2 Credits
Introduction to the IBM compatible PC as a tool for the technician. Introduction to DOS, Windows and Windows-based programs as used in technical work such as a database, spreadsheet, graphing, drawing, technical report word processing, data acquisition, and data entry. Technical specialty programs will be introduced. (Occasionally offered during other semesters.) Three laboratory hours. Course offered Fall only.

TEK 190  Introduction to the Engineering Technologies  3 Credits
A course to acquaint students with the phenomena, terminology and practices of selected technologies, history, present status and possibilities for the future are discussed. The course is divided into blocks sampling topics in Automotive, Civil Electronics, Fire Protection, Instrumentation, Mechanical, Optical, and Quality and Reliability Technology. The student will be introduced to some basic theory, typical class material and career opportunities for the various technologies. Three class hours. Course offered Fall only.

TEK 200  Laboratory Data Preparation and Analysis with MathCad  2 Credits
A course for individuals who acquire and analyze data in science, engineering or technology environments. MathCad is a widely used program in this arena and representative of this class of analysis programs. Students will import data into MathCad from text files and Excel files. Using this data, representative statistical and physical science calculations will be performed in MathCad. Graphs and text commentary will be prepared in MathCad. A typical “formal” laboratory report will be written. One class hour, two laboratory hours. Course offered Fall and Spring. Prerequisite: MTH 140 or higher; one physics, engineering, or technical course with a laboratory recommended.
TEK 206  Special Topics in Engineering Technology  1-3 Credits
This course will present topics relative to the field of mechanical, electrical, optical, and/or manufacturing technologies not covered in existing courses. The topics will introduce the students to emerging technologies and new industry trends, along with their practical applications. Topics will change from semester to semester based upon faculty and student interest. The classes may consist of lecture, laboratory, or alternative learning environment. Course offered Fall and Spring.

TEK 290  Independent Study  Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

THE - Theatre

THE 110  Introduction to the Theatre  3 Credits
A survey of drama and theatre as an art form. Explores playwriting, acting, drama, lighting, makeup, costuming, stagecraft, and theatre history. Three class hours.  (SUNY-A) Course offered Fall and Spring.

THE 111  Introduction to Technical Theatre  3 Credits
An introductory, broad based study of technical theatre involving stage lighting, scenery construction, and stage rigging. Practical emphasis will be placed on the use of tools and equipment. Course requirements include an assignment in a theatre production. Three class hours.  (SUNY-A) Course offered Fall and Spring.

THE 112  Fundamentals of Acting One  3 Credits
Basic acting skills taught through theater games, exercises; and performance of dramatic scenes. Three class hours.  (SUNY-A) Course offered Fall and Spring.

THE 113  Stage Makeup  3 Credits
The principles and practice of applying stage makeup as used in theatrical production. Three class hours. Course offered Fall and Spring.

THE 115  Introduction to Theatrical Costuming  3 Credits
This course will introduce students to the art of costuming for the theatre. Students will study costume techniques based on historical, contemporary and fantastical designs and apply the principles of costume design and construction while working with an independent costumer on a college production. One class hour, two lab hours. Course offered Fall only.

THE 116  Stage Lighting Design  3 Credits
This course is designed to acquaint the student with the art and practice of lighting design for the theatre, the course will include lighting equipment and control, script analysis, design methodologies, additive and subtractive color theory, lighting for dance, musicals and alternate theatre. Assignments include theoretical lighting designs and assignment to a theatre production. One class hour, two lab hours. Course offered Spring only.

THE 142  Musical Theatre Rehearsal and Performance  3 Credits
Rehearsal and performance of a musical theatrical production. Students will be required to successfully pass an audition and be cast in a full-length musical production that will be performed for a public audience. May be repeated for additional credit. Three class hours.  (SUNY-A) Course offered Fall and Spring.  Prerequisite: Audition or permission from the Instructor.

THE 143  Readers’ Theatre  3 Credits
The oral interpretation of poetry, prose and playscripts. Process includes analysis of written material and development of the technical skills involved in reading aloud for an audience. Three class hours.  (SUNY-H) Course offered Spring only.

THE 147  Voice and Diction  3 Credits
This course concentrates on the methods of creating proper articulation, vocal tone, pitch, pace, and resonance; the practical application of breathing, relaxation, tongue and lip placement; and how these elements pertain to voice and diction. The final goal of this course is to instill in the student an awareness of the patterns and styles of speech that are acceptable and, in some instances, demanded upon the acting stage and in the real world. Three class hours. Course offered Fall only.

THE 149  Stage Movement  3 Credits
This course will survey a variety of kinesthetic performance techniques. Students will develop, implement and perform physically expressive theatrical characters and scenarios through spatial awareness and body control. One class hour, two lab hours. Course offered Spring only.

THE 160  Touring Theatre Troupe  3 Credits
The student will participate in the conceptualization, rehearsal, and performance of a theatrical production for a public audience at an off-campus venue. This course may be repeated. One hundred thirty-five experiential hours. Course offered Summer only.

THE 190  Theatre Rehearsal and Performance  3 Credits
Rehearsal and performance of a non-musical theatrical production. Students will be required to successfully pass an audition and be cast in a full-length theatrical production that will be performed for a public audience. May be repeated for additional credit. Three class hours.  (SUNY-A) Course offered Fall and Spring.  Prerequisite: Audition and/or permission of the instructor.

THE 211  Theatre Production Laboratory  3 Credits
The purpose of this course is to give the student insight and practical understanding of the skills necessary to be successful in the high-pressure environment and lifestyle of a theatre production. Practical experience in theatre is achieved by successfully completing a crew assignment on one of the college’s theatre products. Technical aspects of a production include scenery, lighting, costumes, stage management, and artistic management. Specific assignments to production areas are made by instructor based on student requests and production needs. Three lab hours. Course offered Fall and Spring.  Permission of VAPA Theatre Faculty Member.

THE 212  Fundamentals of Acting Two  3 Credits
This course will allow student actors to explore character and relationships through character analysis, script analysis, rehearsal and performance. Much focus will be on scene study and “Method” Acting. Three class hours.  (SUNY-A) Course offered Fall and Spring.  Prerequisite:  THE 112.

TLC - Telecommunications

TLC 101  Telecommunications I  3 Credits
A broad overview of basic telecommunication concepts, practices, industry standards, historical events, and future trends. Three class hours. Course offered Fall and Spring.  Prerequisite: ELT 121 or ELT 130 or permission of the department chair.

TLC 111  Fiber Installation and Maintenance  2 Credits
This course covers the proper stripping, cleaning, cleaving, fusing, and connectorization of glass fibers using the popular tools of the trade. Students learn basic principles of light propagation through both multimode and singlemode fiber optic cable used by the telephone and computer network industry. Students become familiar with measurement techniques using specialized equipment such as the light source, power meter, and OTDR. Students are introduced to the assembly of fiber closures used in the outside plant of the public switched telephone network (PSTN). One class hour, two laboratory hours. Course offered Fall and Spring.

TLC 151  The Public Switched Telephone Network  4 Credits
This capstone course investigates how the public switched telephone network (PSTN) today can allow for billions of simultaneous voice and data communication paths to coexist nation wide and world wide. Using electronics and networking knowledge from other courses, students investigate how both telephone and computer connections are made through the PSTN. Students become familiar with the physical hardware making up the outside plant and gain insight as to how
the various switches found in the PSTN automatically route phone calls and data transfer using twisted pair (copper), microwave, and fiber optic media. Three class hours, three laboratory hours. Course offered Fall and Spring.

Pre-requisite: TLC 101 and TLC 111; co-requisites: CPT 115 and ETL 232 (or ETL 121 and ETL 112).

TLC 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.

TRS - Transitional Studies

TRS 092 Basic Mathematics No Credit
Students will develop competencies in basic mathematics. The emphasis will be on number theory related to whole numbers, fractions, decimals, proportions, and percents. There will be an emphasis on reduction of math anxiety, development of critical thinking skills, and practice using estimation theory and problem-solving methods. Students will use appropriate technology to reinforce their skills. Students will gain confidence in using math in everyday situations. Five imputed credit hours; no earned credits. Five class hours per week; five fee hours. Course offered Fall and Spring.

TRS 094 Pre Algebra No Credit
This course, for students who have mastered basic computations, offers preparation for further coursework in mathematics. Students will use fundamentals of mathematics to develop entry level competencies in business math, geometry, rational numbers, and algebra. They will use appropriate technology to reinforce their skills and gain confidence in using math in everyday life. Five imputed credit hours; no earned credits. Five class hours per week; five fee hours. Course offered Fall and Spring.

Pre-requisites: Accuplacer placement, or TRS 092 with a grade of C or better.

TRS 100 Integrated Reading and Writing I No Credit
Integrated Reading and Writing I is a four-hour foundational course with a two-hour required lab component. This course is designed to help students admitted through the Transitional Studies Department progress in their academic reading, writing, and learning skills. Students will develop effective reading strategies, increase reading fluency, expand vocabulary, improve Standard English writing skills, and produce unified, coherent text. Students will read, write, and reflect upon contextualized materials related to local, global, social, career, and other relevant topics. Five imputed credit hours; no earned credits. Four class hours per week, two lab hours. Course offered Fall and Spring.

Accuplacer reading score 40-57.9.

TRS 105 Academic Writing No Credit
This course is designed to prepare students for success in ENG 101. This course will cover the aspects of development, revision, and writing of academic essays, as well as language mechanics, grammar, and usage skills necessary for effective written communication. Emphasis is on the application of these skills in frequent writing assignments and revisions of academic essays. Three class hours per week, three fee hours. Three imputed credit hours; no credits earned. Course offered Fall and Spring.

Pre-requisite(s): Accuplacer reading score of 71 - 80.9 and sentence skills score of 94.9 or lower; or reading score of 81 or above and sentence skills score of 64.9 or lower. Co-requisite: Co-enrollment in any REA 100 for students with Accuplacer reading comprehension scores between 71 - 80.9.

TRS 200 Integrated Reading and Writing II No Credit
TRS 200 is a course that continuously integrates reading and writing. Students will become better readers through writing and better writers through reading. This recursive process will be applied to a variety of texts, including academic essays and multi-modal forms. The reading, writing, and thinking skills developed in TRS 200 will be relevant to other college coursework. Five imputed credit hours. Four class hours, two lab hours. No credit. Course offered Fall and Spring.

Pre-requisite: TRS 100 with a C or better or Accuplacer reading score of 58-70.9.

TVL - Travel And Tourism

TVL 101 Introduction to Travel and Tourism 3 Credits
This course offers an insightful look into the fields of travel, tourism and hospitality. Students will explore the many exciting career opportunities that await them in an industry that has propelled to the forefront of world business. The economic role of travel and tourism is assessed with regard to its impact on public policy and destination development. Domestic and international air travel, car rentals, rail and the world of lodging are just a few of the topics that will be examined. Three class hours. Course offered Fall and Spring.

TVL 131 Documentation in the Tourism Industry 3 Credits
Extensive examples and exercises will provide students with the essential information they will need regarding the fare and ticketing process. Detailed coverage of manual and automated ticketing will be covered including special ticketing procedures, exchanges, and refunds. All ticketing formats and entries contained in this course are in strict accordance with the ARC INDUSTRY AGENTS’ HANDBOOK. The Airline Reporting Corporation (ARC) establishes industry-wide standards for the sale and completion of all airline-generated documents. Three class hours. Course offered Fall only.

TVL 210 Introduction to Airline Reservations Systems: SABRE 3 Credits
This course introduces the student to the SABRE computer reservation and ticketing system. The course uses SABRE terminals in a training mode. Programmed lessons are used to acquire proficiency in SABRE formats. One class hour, two laboratory hours. Course offered Spring only.

TVL 220 Introduction to Airline Reservations Systems: APOLLO 3 Credits
This course introduces the student to the APOLLO computer reservation and ticketing system. The course uses APOLLO terminals in a training mode. Programmed lessons are used to acquire proficiency in APOLLO formats. Spring Semester only. Three class hours. Course offered Fall and Spring.

TVL 231 Tourism Specialization 3 Credits
Exciting segments of the travel and tourism market will be explored. Cruising is the fastest growing segment of the travel industry. The class will look in detail at cruise history, cruise types, how the industry operates, the experience at sea and compare and contrast itineraries. Course content will also cover the tools and techniques necessary to prepare for an exciting and enriching career as a tour guide, director or planner. Knowledge will be applied through the use of professional and promotional materials, as well as through a computerized hands-on component. Three class hours. Course offered Spring only.

TVL 275 Current Issues and Trends in Hospitality 3 Credits
This course is an examination of contemporary issues and topics that are influencing the travel, tourism and hospitality industry. Students will collect pertinent articles and information from newspapers, magazines, professional journals, and news programs, and will utilize the internet to find relevant issues to discuss in class. Oral presentations, guest speakers, and class discussions will allow the student to develop knowledge and awareness on issues that will impact the industry both in the present and in the future. Three class hours. Course offered Spring only.

TVL 290 Independent Study Variable Credit
See the Department Chairperson. Course offered Fall and Spring.
XRT - Radiologic Technology

XRT 111  Radiographic Technology I  9 Credits
An introductory course in radiographic technology fundamentals. The course focuses on radiographic positioning procedural competency, radiographic exposure principles and application, radiographic image processing essentials, medical terminology, and basic patient care. Six class hours, seven laboratory hours. Course offered Fall only.

XRT 122  Radiographic Technology II  6 Credits
Study of advanced radiographic positioning procedures, and in-depth radiographic exposure principles and experimental applications. Additional emphasis is on contrast media used in diagnostic imaging, pediatric radiography, and radiography of the skull, sinuses, and temporal bone. Four class hours, four laboratory hours. Course offered Spring only. Prerequisites: XRT 111 and XRT 151 with a grade of C or better.

XRT 151  Orientation/Clinical Education I  4 Credits
An overview of diagnostic radiography and its role in health care delivery including specific guidelines, responsibilities, policies, and clinical education experience. Emphasis is on orientation to the program and the clinical setting, radiography as a health science profession, professional ethics, and safety issues. Three conference hours, five clinical laboratory hours. Course offered Fall only.

XRT 152  Clinical Education II  4 Credits
A continuation of XRT 151. This course is designed to involve students in supervised direct delivery of diagnostic radiographic services at an assigned clinical education center. A structured clinical learning plan enables the student to gain experience in basic routine procedures and gradually move through mastery learning toward competent clinical attitudes and skills development. Twelve clinical laboratory hours. Course offered Spring only. Prerequisites: XRT 111 and XRT 151 with a grade of C or better.

XRT 153  Clinical Education III  4 Credits
A continuation of XRT 152. This course is designed to involve students in supervised direct delivery of diagnostic radiographic services at an assigned clinical education center. A structured clinical learning plan enables the student to gain experience in standard routine procedures and gradually move through mastery learning toward competent clinical attitudes and skills development. Additional laboratory focus is on mammography including competency testing. Forty clinical hours each week for seven weeks of summer session. Course offered Summer only. Prerequisites: XRT 122 and XRT 152 with a grade of C or better, and PHY 141.

XRT 211  Radiographic Technology III  3 Credits
Study of advanced radiography of the facial bones by producing and evaluating phantom radiographic images. Continuation of advanced radiographic exposure utilizing theory, applications, and problem solving. Additional focus is on the fundamental principles of radiation biology and protection with emphasis on implications for technologists. Two class hours, three laboratory hours. Course offered Fall only. Prerequisite: XRT 153 with a grade of C or better.

XRT 215  Sectional Anatomy  1 Credit
Designed to provide students in the diagnostic imaging sciences a basic understanding of three dimensional structure relationships of normal anatomy. Transverse, coronal, sagittal orientation of visceral anatomy of the head, neck, thorax, abdomen and pelvis will be presented with emphasis in the transverse plane. Computed tomography and magnetic resonance images will be used as supplemental learning tools. One class hour. Course offered Fall only. Prerequisites: XRT 153 with a grade of C or better and BIO 142, or permission of the program director.

XRT 220  Radiographic Pathology I  1 Credit
Designed to examine radiographic images for pathologic processes as compared to normal anatomy and topography. The main focus is on the study of changes which occur as a result of disease and injury which necessitate alteration of standard radiographic exposure applications. Probes pathology of the respiratory system, alimentary tract, and the hepatobiliary system. One class hour. Course offered Fall only. Prerequisite: XRT 153 with a grade of C or better.

XRT 222  Radiographic Technology IV  5 Credits
The study of advance imaging such as special procedures, interventional radiography, computed tomography, and magnetic resonance imaging. Fundamentals applications of quality assurance for diagnostic radiology occurs in the energized x-ray laboratory. Additional focus is on radiographic equipment analysis and concepts of radiography management. Four class hours, two laboratory hours. Course offered Spring only. Prerequisites: XRT 211, XRT 215, and XRT 251 with a grade of C or better.

XRT 230  Radiographic Pathology II  1 Credit
A continuation of XRT 220. Designed to examine images for pathologic processes as compared to normal anatomy and topography. The main focus is on the study of changes which occur as a result of disease and injury which necessitate alteration of standard radiographic exposure applications. Probes pathology of the genitourinary system, osseous system and joints, central nervous system, and investigates all aspects of neoplasia. One class hour. Course offered Spring only. Prerequisite: XRT 220.

XRT 251  Clinical Education IV  8 Credits
A continuation of XRT 153. This course is designed to involve students in supervised direct delivery of diagnostic radiographic services at an assigned clinical education center. A structured clinical learning plan enables the student to gain experience in advanced procedures and gradually move through mastery learning toward competent clinical attitudes and skills development. Twenty-four clinical laboratory hours. Course offered Fall only. Prerequisite: XRT 153 with a grade of C or better.

XRT 252  Clinical Education V  8 Credits
A continuation of XRT 251. This course is designed to involve students in supervised direct delivery of diagnostic radiographic services at an assigned clinical education center. A structured clinical learning plan enables the student to gain experience in advanced procedures and move through mastery learning toward competent clinical attitudes and skills development. Additional emphasis is on procedural proficiency leading to professional competence. Completion of all clinical education requirements and submission of the student’s clinical portfolio is essential in order to graduate. A grade of C or better is required. Twenty-four clinical laboratory hours. Course offered Spring only. Prerequisites: XRT 211, XRT 215, and XRT 251 with a grade of C or better.

XRT 253  Supplemental Clinical Education (Optional)  Variable Credit
This is not a required course. It is designed as an extension of the clinical education experience for those students who need additional time to successfully complete the required clinical competencies/graduate outcomes. Primarily intended as a supplement to XRT 252 and offered concurrently with XRT 163 (seven week summer session). Course offered Fall and Spring.

XRT 290  Independent Study  Variable Credit
See the Program Director. Course offered Fall and Spring.

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