

Course Discipline Categories

BASIC SKILLS COURSES		
Discipline Category Name	This category includes:	
If indicated by placement testing, basic skills courses are required as prerequisite courses. These courses count toward load and financial aid but receive 0 college credits toward the graduation requirement.	ENG099, MAT090, MAT098, and RDG095	
DISCIPLINE CATEGORIES		
Discipline Category Name	This category includes:	
Accounting	Any course with the prefix: ACC	
Business	Any course with the prefix: BUS	
College Success	FCS101	
Computer Science	Any course with the prefix: CSC	
Criminal Justice	Any course with the prefix: CRI	
Electrical/Electronics Technology	Any course with the prefix: ETE	
English	Any course with the prefix: ENG above 100	
Environmental Science & Technology	Any course with the prefix: ENV	
Free Electives	Any course that receives college credit. <i>Note: COM100, MAT100, and MAT100Q count as free elective credit only.</i>	
Health & P.E.	Any course with the prefix: HPE (except HPE 100)	
Health & P.E. Activity	Any 1-credit course with the prefix: HPE	
Health Services Management	Any course with the prefix: HSM	
History	Any course with the prefix: HIS or FRE250 <i>Note: HIS121, HIS122, HIS132 can count as either History or Humanities</i>	
Humanities	Any course with the prefix: ART, CHI, COM (except COM100), ENG above 102 (except ENG235), ESL, FRE, GER, GWS, HUM, MSM, MUS, PHI, SPA, THE or HIS121, HIS122, HIS132 <i>Note: GWS101, MSM118 can count as either Humanities or Social Science; HIS121, HIS122, HIS132 can count as either Humanities or History</i>	
Humanities Sub-Category	Foreign Language	Any course with the prefix: CHI, FRE, GER, SPA
	The Arts	Any course with the prefix: ART, MUS, THE or HUM110, MSM239
Human Services	Any course with the prefix: HUS	
Individual Studies Electives	College-credited courses as per advisement	
Industrial/Commercial Electrician	Any course with the prefix: ICE	
Info. Management	CSC102, LIB101, SCI110	
Math above 100	Any course with the prefix: MAT above 100	
Mechanical Technology	Any course with the prefix: MEC	
Nursing	Any course with the prefix: NUR	
Science with a lab	Any course with the prefix: BIO, CHE, GEL, MET, PHY, SCI (except SCI110) or ENV101, ENV210	
Social Science	Any course with the prefix: ANT, ECO, GWS, PSC, PSY, SOC or CRI103, CRI104, CRI206, MSM118 <i>Note: GWS101, MSM118 can count as either Social Science or Humanities</i>	
STEM Electives	Any course with the prefix: BIO, CHE, ETE, GEL, MAT above 100, MET, PHY, SCI (EXCEPT SCI110) or CSC121, CSC202, CSC217, CSC222, ENV101, ENV210, ENV220, MEC203, MEC204, MEC205, MEC206, WTT102, WTT201, WTT202	
Wind Energy & Turbine Technology	Any course with the prefix: WTT	

SUNY-GER CATEGORIES			
Abbreviation	Name	Abbreviation	Name
AH	American History	M	Mathematics
AR	The Arts	NS	Natural Science
BC	Basic Communication	SS	Social Science
FL	Foreign Language	WC	Western Civilization
H	Humanities	OW	Other World Civilization

Course Descriptions

Credit bearing courses at Clinton Community College require college-level reading and writing skills. Therefore, to enroll in credit courses, a student must place into ENG 101 or successfully complete ENG 101S (ENG 099 & ENG 101). In addition, a student must successfully complete RDG 095 or have placement scores that indicate college-level reading skills. There are a few exceptions.

The course listings which follow include basic descriptions of courses offered by the College. Courses are listed alphabetically by department. Courses are numbered according to the subject area, rather than according to the level of the course. Descriptions are general in nature. Prerequisites define those courses which must be taken before enrolling in that course.

**NOTE: There is no guarantee of all classes being offered during the day or during every semester. Also, prerequisites and corequisites (in addition to those listed in this section of the catalog) may be required for some courses.*

LIBERAL ARTS COURSES AT CLINTON COMMUNITY COLLEGE

Liberal Arts and Sciences courses provide a broad, general education, which include the arts, English, humanities, mathematics, natural sciences, and social sciences. Liberal Arts courses include the following:

LIBERAL-ARTS COURSES	
English	ENG 101 or higher
Humanities	ART, CHI, COM (except COM100), ENG above 102 (except 235), ESL, FRE, GER, GWS, HIS121, HIS122, HIS132, HUM, MSM, MUS, PHI, SPA, THE
Mathematics	MAT above 100
Natural Sciences	BIO, CHE, GEL, MET, PHY, SCI (except SCI110), ENV101, ENV210, ENV220
Social Sciences	ANT, CRI102, CRI103, CRI206, ECO, GWS, HIS, MSM118, PSC, PSY, SOC

Accounting

ACC 110 FUNDAMENTALS OF ACCOUNTING
(Offered upon sufficient demand) **3 CREDITS**
Prerequisites: MAT 100 or higher

In this course, students learn the basic accounting principles needed to effectively make business decisions as a manager. Course topics include: 1) a review of mathematical concepts and applications; 2) an overview of accounting theory; 3) financial statement analysis; 4) roles of financial and managerial accounting in businesses; and 5) costing and budgeting methods used by businesses.

ACC 120 FINANCIAL ACCOUNTING
(Offered Fall and Spring) **4 CREDITS**
Prerequisites: MAT 100 or higher and placement into ENG 101.

This is a course of study that introduces financial accounting and financial reporting for business entities. It offers an introduction to accounting information system with emphasis on measuring, reporting, and using accounting information

related to operating, investing, and financing activities, and involves detailed discussion of accounting concepts and issues concerning the financial position, income statement, statement of stockholders' equity and statement of cash flows.

ACC 125 MANAGERIAL ACCOUNTING
(Offered Fall and Spring) **4 CREDITS**
Prerequisite: ACC 120

This is a course of study that introduces managerial accounting for business entities. It offers an introduction to managerial accounting topics including cost analysis, cost allocation, job order and process costing systems, activity-based-costing, cost-volume-profit analysis, short-run decision making, budgeting, standard costing and variance analysis, capital budgeting decisions, and financial statement analysis. Accounting ethics and values are also emphasized.

ACC 159 PAYROLL ACCOUNTING
(Offered Fall only) **3 CREDITS**

The goals of this course are to develop an understanding of personnel and payroll records that provide information required by numerous laws. Payroll accounting systems using payroll registers, recording of accounting entries and payroll are presented relating to the payments of wages and salaries. A computerized payroll project is required.

ACC 202 COST ACCOUNTING
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: ACC 125

A study of cost accounting, embracing an inquiry into the methods of accounting for materials, labor and overhead in a manufacturing operation. Standard cost systems and managerial cost applications are also covered.

ACC 251 FEDERAL INCOME TAX
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: ACC 120

The more important provisions of Federal Income Tax and the interrelationships between income tax rules and accounting principles utilized in developing taxable income information are emphasized.

ACC 252 COMPUTER APPLICATIONS IN ACCOUNTING
(Offered Spring only) **3 CREDITS**
Prerequisites: ACC 120 and CSC 102

The course is designed to provide students with the necessary skills to analyze, process, and report accounting information by utilizing three (3) accounting methods: 1) manual accounting applications, 2) Microsoft Excel, and 3) computerized accounting software system (QuickBooks Pro). Through the use of a manual practice set students will be exposed to realistic documents and records, including multi-copy business forms, to enhance their learning experience and reinforce knowledge gained by students in ACC 120. Course will then provide hands-on experience in accounting uses of Microsoft Excel. This section includes using multiple sheets with Excel formulas, preparing professional quality financial reports, creating graphs to interpret results and using Excel functions to evaluate accounting data. The course will conclude by having students learn how to setup and maintain new company systems, manage chart of accounts and ledgers, analyze and enter transactions, generate financial reports, import/export data, manage files, and manage system security by using a computerized accounting software system.

ACC 285 TAX INTERNSHIP

(Offered Spring only)

3 CREDITS

Prerequisite: ACC 251 (Federal Income Tax) or permission of professor.

The goal of this internship is a supervised, on-the-job work experience related to the study of Federal Income Tax. Students must pass Federal Income Tax tests consisting of five parts (Ethics, Basic, Intermediate, Advanced, and Health Savings Accounts). Students are required to attend seminars (45 hours of class offered both online and live) *prior* to the official start of the spring semester. Students are required to submit certificates of Course Completion (Ethics, Basic, Intermediate, Advanced, and Health Savings Accounts) to the instructor. Students are also required to work no less than 90 hours preparing personal Federal and State income tax returns. Students will receive additional training from their Tax Counseling for the Elderly/Volunteer Income Tax Assistance (TCE/VITA) volunteer supervisors and will obtain practical experience relating to work place policies and procedures.

Anthropology

ANT 101 CULTURAL ANTHROPOLOGY

(Offered Fall and Spring)

3 CREDITS

Prerequisite: Placement in ENG 101

Gen Ed Category: Social Sciences

This course is a survey of human's cultural evolution from a hunting and gathering society to the modern industrial state. Kinship systems, social and political organizations, economic structures, religious beliefs and artistic achievements of non-western culture will be studied and compared to western culture.

Art

ART 100 ART APPRECIATION

(Offered Fall and Spring)

3 CREDITS

Prerequisite: ENG 094

Gen Ed Category: The Arts

This lecture course examines the visual arts. Painting, drawing, printmaking, multimedia art, the crafts, architecture, and sculpture are examined and defined through an analysis of heritage, contemporary criticism, process, and product. Students learn the expressive and communicative language of aesthetic form (i.e. line, shape, color) and its integral relationship to content within a work of art. The cultural use of artist materials and how artists create visual art using media will be explored. A survey of art of the world will study the impact of art on human history. The course includes lecture, text, and digital materials.

ART 101 INTRODUCTION TO DESIGN

(Offered Spring only)

3 CREDITS

Gen Ed Category: The Arts

This course involves the exploration and uses of the elements and principles of design. Students will gain an understanding and develop a sensitivity to the fundamentals of design and composition by manipulation and creative solving of design problems. Through design problems (assignments – both in and outside of class), group viewings, lecture/demonstrations, students will learn the theory, history and purposes of design and its universal qualities and applications. T

ART 103 INTRODUCTION TO DRAWING

(Offered Fall and Spring)

3 CREDITS

Gen Ed Category: The Arts

This studio course is an introduction to the applied art of drawing. Hands-on creative problem solving and strong work

ethic are highly encouraged in a studio atmosphere. Through in-depth projects and personalized demonstrations, students will gain greater insight, sensitivity, and understanding of how to create and finish a drawing as a work of art. The student will study techniques and media to sharpen visual/perceptual skills and, in turn, become more confident to pursue drawing as an artist.

ART 104 INTRODUCTION TO PAINTING

(Offered Fall and Spring)

3 CREDITS

Gen Ed Category: The Arts

This course is an introduction to the applied art of oil painting. Through in-depth projects and personalized demonstrations, students will gain greater insight, sensitivity, and understanding of how to create and finish a painting as a work of art. Students will develop a working knowledge of oil painting materials and techniques. Personalized studio demonstrations and experiences, will increase students' understanding of painting, not only as a means of self expression, but also as a way of heightening perception. Hands-on creative problem solving and strong work ethic are highly encouraged in a studio atmosphere.

ART 107 INTRODUCTION TO WATERCOLOR

(Offered upon sufficient demand)

3 CREDITS

This course is an introduction to watercolor painting. Through hands-on exercises and demonstrations, students will gain insight, skill and understanding to create original watercolor paintings. Students will develop a working knowledge of beginning level watercolor materials and basic techniques. In-class demonstrations and individual participation will help to develop greater understanding of watercolor painting, not only as a medium for self-expression but to broaden personal observation skills. Class involvement and a strong work ethic are encouraged in this course.

ART 108 3D DESIGN

(Offered Fall only)

3 CREDITS

Gen Ed Category: The Arts

In this introductory level course, hand-on experiences emphasize individual creative solutions to problems as they relate to the elements and principles of 3D Design. Students will explore 3D processes used in building three dimensional artwork, creating examples that explore construction, casting, carving, modeling and assemblage. This course is part of the SUNY Seamless Transfer Pathway in Art.

ART 110 INTRODUCTION TO THE ARTS

(Offered upon sufficient demand)

3 CREDITS

Gen Ed Category: The Arts

This course offers a general survey of the humanities. Art, music, literature, theater, and philosophy are studied and discussed from a historical and cultural context. Students are encouraged to think critically while evaluating the humanistic disciplines and their bearing on wider social ideals, issues, and questions.

ART 111 TRADITIONAL PHOTOGRAPHY

(Offered upon sufficient demand)

3 CREDITS

Gen Ed Category: The Arts

This studio art course introduces the student to the mechanics of the film camera and lens and includes an introduction to the basic and historic darkroom techniques involving film processing and fine-art printmaking. Further emphasis will focus on the aesthetic principles and concepts of black and white photography including composition, contrast, photographic context, semiotics, print analysis and archival printing. Cameras are available for student use and supplies can be purchased at the bookstore as if purchasing a textbook.

ART 112 PHOTOGRAPHY II

(Offered upon sufficient demand)

3 CREDITS

Prerequisite: ART 111

This course is an extension of ART 111, Photography I. It introduces students to fine art photographic applications, medium format photography, and studio photography, all of which broaden the student's experience and skills both with the camera and in the darkroom. (Students must provide their own cameras and will have to purchase film and photo paper.)

ART 113 DIGITAL PHOTOGRAPHY

(Offered Fall and Spring)

3 CREDITS

Gen Ed Category: The Arts

This introductory course is a unique combination of the exploration of digital photography and the use of computer imaging to capture, manipulate and enhance a photograph. Through the use of Adobe Creative Suite software, the student will learn how to edit, manipulate, and save photographs, using Adobe Photoshop and how to manage their digital files, using Adobe Bridge. The student will also be introduced to the basics of photography utilizing the digital camera. The student will acquire skills including exposure for the digital camera; file formats; composition; the creative use of aperture and shutter speed; lighting characteristics and white balance; and understanding and manipulating histograms. The student will also become familiar with the terms of digital technology. Students must have access to a digital camera.

ART 114 INTRODUCTION TO ILLUSTRATION

(Offered upon sufficient demand)

3 CREDITS

Gen Ed Category: The Arts

This course is an introduction to the professional field of illustrative drawing and painting. The student will work with traditional media (such as pen and ink, oil and acrylic paints) to create images for use in a variety of areas within the field such as Book Publishing, Advertising, Pre-Production Concepts, and Editorial. While employing a range of techniques, the student will use their knowledge of drawing and painting to begin building a professional portfolio.

ART 115 ART OF THE WESTERN WORLD: ANCIENT THROUGH MEDIEVAL

(Offered upon sufficient demand)

3 CREDITS

Gen Ed Category: The Arts & Humanities

This course is a survey of visual art from the ancient era to the medieval with a focus on western traditions. We will study developments in art from the Paleolithic era to the Gothic era with attention devoted to the significant works of art made within this time frame. Students will learn the expressive and communicative language of aesthetic form (i.e. line, shape, color) and its integral relationship to content within a work of art. The cultural use of artistic materials and how artists responded to their world creating visual art will be explored. The course includes lecture, text, and digital materials applications. The course will be sequenced with Art of the Western World: Renaissance through the Twentieth Century.

ART 116 ART OF THE WESTERN WORLD: RENAISSANCE THROUGH THE TWENTIETH CENTURY

(Offered upon sufficient demand)

3 CREDITS

Gen Ed Category: The Arts & Humanities

This course is a survey of visual art from the renaissance through the modern era with a focus on western traditions. We will study developments in art from the renaissance through the twentieth century with attention devoted to the significant works of art made within this time frame. Students will learn the expressive and communicative language of aesthetic form (i.e. line, shape, color) and its integral relationship to content

within a work of art. The cultural use of artistic materials and how artists responded to their world creating visual art will be explored. The course includes lecture, text, and digital materials applications. The course will be sequenced with Art of the Western World: Ancient through Medieval. T

ART 120 DRAWING II

(Offered upon sufficient demand)

3 CREDITS

Prerequisite: ART 103 or permission of instructor.

This studio course is a continuation of ART 103 Introduction to Drawing. Hands-on creative problem solving and strong work ethic are highly encouraged in a studio atmosphere. Through observational drawing projects students will gain greater insight, sensitivity, and understanding of how to create and finish a drawing as a work of art. The student will study techniques and media to sharpen observational skills and, in turn, become more confident to pursue drawing as an artist.

Biology

BIO 100 HUMAN BIOLOGY

(Offered Fall and Spring)

4 CREDITS

Corequisite: ENG 101, college level reading or completion of ENG 101S and RDG 095

Gen Ed Category: Natural Sciences

This course is a general science course for non-science majors. It covers general topics in biology including chemistry, cells, cell division, genetics, protein synthesis, biotechnology, and bioethics. Several body systems including the circulatory, respiratory, digestive, and immune systems are also covered. The objective is to raise students' science literacy to enable them to understand scientific issues for making personal and public policy decisions. There are three hours of lecture and one two-hour laboratory per week. Students who have received credit for BIO 101 or BIO 102 cannot subsequently receive credit for BIO 100. In the case that a student completes BIO 100 prior to completing BIO 101 or 102, then BIO 100 will count as a free elective credit only.

BIO 101 GENERAL BIOLOGY

(Offered Fall, Spring and Summer)

4 CREDITS

Prerequisite: Placement into MAT 100 or higher.

Corequisite: ENG 101, college level reading or completion of ENG 101S and RDG 095

Gen Ed Category: Natural Sciences

This course is the first of a two-semester introductory course covering some central biology concepts, including molecular and cellular bases of life, photosynthesis, cellular respiration, cellular reproduction, and introductory concepts of genetics, inheritance, and biotechnology. The laboratory experience emphasizes problem-solving and data analysis using the process of scientific inquiry and the application of concepts discussed in lecture. The laboratory experience emphasizes lab documentation and the use of a variety of biological instrumentation. There are three hours of lecture and one two-hour laboratory per week. Students who have received credit for BIO 101 or BIO 102 cannot subsequently receive credit for BIO 100. In the case that a student completes BIO 100 prior to completing BIO 101 or 102, then BIO 100 will count as a free elective credit only. Students are strongly advised to take SCI 110 during the first seven week offering along with BIO 101 in the given semester or take SCI 110 prior to taking BIO 101.

BIO 102 GENERAL BIOLOGY II

(Offered Fall and Spring)

4 CREDITS

Prerequisite: BIO 101; **Corequisite:** ENG 101, college level reading or completion of ENG 101S and RDG 095

Gen Ed Category: Natural Sciences

This course is a continuation of BIO 101. Topics include evolution, biological diversity, plant structure and function, animal systems, and development and reproduction, and introductory concepts of ecology. The laboratory reinforces concepts discussed in lecture emphasizing evolution, plant and animal diversity, and anatomy and physiology of selected plants and animals. There are three hours of lecture and two hours of laboratory per week. Students who have received credit for BIO 101 or BIO 102 cannot subsequently receive credit for BIO 100. In the case that a student completes BIO 100 prior to completing BIO 101 or 102, then BIO 100 will count as a free elective credit only.

BIO 204 MICROBIOLOGY
(Offered Fall and Spring) **4 CREDITS**
Prerequisite: Successful completion of BIO 101 or acceptance into Clinton Nursing Program or Permission of Instructor. Corequisite: ENG 101, college level reading or completion of ENG 101S and RDG 095

Gen Ed Category: Natural Sciences

This course is an introduction to the study of bacteria, viruses and eukaryotic members of the microbial world with an emphasis on their relationship to health and disease. Course topics include microbial structure, growth and replication, metabolism, pathogenicity of microorganisms, and the control of microbial growth. The laboratory includes basic techniques, such as staining, aseptic technique, and methods of bacterial identification. There are three hours of lecture and one two-hour laboratory per week.

BIO 206 ECOLOGY
(Offered Fall only) **4 CREDITS**
Prerequisite: BIO 101; Corequisite: ENG 101, college level reading or completion of ENG 101S and RDG 095

Gen Ed Category: Natural Sciences

This course introduces basic relationships between organisms and their environment. It includes a study of the abiotic environment, natural selection, population ecology, growth and genetics, species interactions, energy flow and nutrient cycling, geographic ecology, and animal behavior. There are three hours of lecture and one two-hour laboratory each week. Field trips may be included in the laboratory.

BIO 228 ANATOMY & PHYSIOLOGY I
(Offered Fall, Spring and Summer) **4 CREDITS**
Prerequisite: Successful completion of BIO 101 or acceptance into Clinton Nursing Program or Permission of Instructor. Corequisite: ENG 101, college level reading or completion of ENG 101S and RDG 095

This course is the first of a two-semester, comprehensive survey of the ten organ systems of the human body, integrating chemical bases of the physiology of each system with structure and function. Includes a study of cells and tissues, integumentary, skeletal, digestive, respiratory, urinary and reproductive systems. The laboratory section of the course includes mammalian dissection and direct observation, by experiment, of the natural laws governing human physiological processes. There are three hours of lecture and one two-hour laboratory per week.

**Students should have taken biology within the past 5 years to be prepared for this course.*

BIO 229 ANATOMY & PHYSIOLOGY II
(Offered Fall and Spring) **4 CREDITS**
Prerequisite: BIO 228 – Anatomy and Physiology

BIO 229 is a continuation of BIO 228. The muscular, nervous, endocrine, cardiovascular, lymphatic and immune systems are covered. There are three hours of lecture and one two-hour laboratory per week.

BIO 250 BIOTECHNOLOGY
(Offered upon sufficient demand) **4 CREDITS**
Prerequisite: BIO 100, BIO 101 or CHE 101; Corequisite: ENG 101

Gen Ed Category: Natural Sciences

This course provides an introduction to biotechnology and its application in a variety of medical, clinical and science disciplines. Topics covered include GLP, GMP, solution chemistry, spectroscopy, chromatography, basic microbiology techniques and DNA and protein purification/separation techniques. This course emphasizes basic laboratory skills essential for beginning level employment in clinical, pharmaceutical and biotechnology laboratories. This course is well suited to students in all majors programs. There are three hours of lecture and one two-hour laboratory per week.

Business

BUS 101 INTRODUCTION TO BUSINESS
(Offered Fall and Spring) **3 CREDITS**

Introduction to business will identify the role and purpose of business and provide an overview of individual function areas of business including management accounting, finance, marketing, and operations. Course will focus on ethics and social responsibility of businesses and the influence of the global, financial, and legal environment by applying business concepts and vocabulary to case studies.

BUS 110 PERSONAL FINANCE
(Offered Fall only) **3 CREDITS**

Designed to help the student reason and understand the basis of his/her own personal finance decisions in everyday activities. Attention is given to personal income and personal expenditures, borrowing, and the use of personal credit. Introductory personal investment practices, insurance, annuities, home investment, securities and mutual funds will also be covered, as well as taxes and estate planning.

BUS 153 QUANTITATIVE BUSINESS SKILLS
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: Placement into MAT 100 or equivalent.

A course is an applications-based course using quantitative skills through applying mathematical operations to the solution of practical problems in general business, retailing, accounting, consumer credit, and personal finance. Topics include percentages, simple and compound interest, establishing retail pricing, discounts, depreciation, payroll, taxes, bank statements and reconciliation, preparing accounting financial reports, consumer credit, investing, annuities, and statistics. This course does not fulfill a Math requirement and cannot be used as a Math elective. Business and Accounting majors can use it to fulfill a BUS/ACC elective and other students can use it to fulfill a free elective.

BUS 209 SMALL BUSINESS MANAGEMENT
(Offered upon sufficient demand) **3 CREDITS**
Prerequisites: BUS 101 and ACC 120

This course is designed to provide students with real life applications in a business setting. The student will be

responsible for all applications: accounting, federal taxes, NYS Corporate franchise taxes, and all other necessary business activities such as financing, purchasing, inventory, budgeting, marketing, sales, internal and external communication, asset control, and human resources. The course will be reinforced by using a text, Quick Books, and Turbo Tax.

BUS 210 PRINCIPLES OF MARKETING
(Offered Fall only) **3 CREDITS**
Prerequisite: BUS 101

A study of methods, policies and institutions involved in the distribution of goods and services, including an analysis of consumer and industrial markets, channels of distribution, and the organization of a marketing program. Students will be required to read current literature in the field.

BUS 211 INTERNATIONAL BUSINESS MANAGEMENT
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: BUS 101

Introduces the concepts and mechanics of conducting business in a global environment. Topics focus on the United States and its trade relations with other countries.

BUS 213 BUSINESS COMMUNICATIONS
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: ENG 101

Designed to give a comprehensive view of communication: its scope and importance in business, its role in establishing a favorable outside-the-firm environment, and effective internal communication program. The various types of business communication media are covered. The course also develops an awareness of the importance of succinct written expression to modern business communication. Required assignments are to be typewritten.

BUS 215 HUMAN RESOURCE MANAGEMENT
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: BUS 101

A study of the utilization of the workforce in business. Text material, discussions, and case studies are used in preparation for the responsibility of supervising and managing people.

BUS 218 BUSINESS ETHICS
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: ENG 101

Gen Ed Category: Basic Communication [Oral Expression]
This course introduces the topic of ethics from a broad based global and practical basis and from the perspective of our Clinton Community College professionals. This course emphasizes the importance of oral communication in business and modern society, and will prepare students for their experiences throughout SUNY. Through research, case studies, class presentations, and guest presenters, students will be introduced to the contemporary issues of ethics, morality and social responsibility that face today's business community.

BUS 250 PRINCIPLES OF MANAGEMENT
(Offered Spring only) **3 CREDITS**
Prerequisite: BUS 101

Studies theories and techniques of management, including case studies of managers in action and the problems they face.

BUS 260 BUSINESS LAW I
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: BUS 101

Introduces fundamental legal principles and their applications to business and everyday life. Includes law and society,

contracts, agency, sales, commercial paper, bailments, and secured transaction.

BUS 261 BUSINESS LAW II
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: BUS 260

A continuation of BUS 260 covering partnerships and corporations, real and personal property, insurance suretyship, bankruptcy, wills and trusts, and labor law.

BUS 275 INTEGRATED BUSINESS EXPERIENCE
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: Students must have completed at least 30 credit hours in an AAS or AS degree program (which must include ENG101 and CSC102), a minimum cumulative grade point average of 2.0 or better, completed at least 12-15 credit hours in business and/or accounting courses as listed: 4-8 credits in accounting courses (ACC 120 and any other ACC course) AND 6-9 credits in business courses (BUS 101 and any other BUS course(s))

This course is a comprehensive introduction to the various fields within business and accounting, encompassing both classroom and experiential learning environments. Students will be encouraged to integrate and apply knowledge learned in previous courses to real world projects provided by local companies. Career exploration, self-awareness, business relationship building, soft skills and work readiness will be incorporated into this course.

BUS 285 BUSINESS INTERNSHIP
(Offered Fall and Spring) **3 CREDITS**

Prerequisite: Students must have completed at least 30 credit hours in an AAS degree program (which includes ENG 101 and CSC 102), a minimum cumulative grade point average of 2.5 or better, and completed at least 16-17 credit hours in Business and/or Accounting courses as listed: AAS Accounting – 11 credit hours in accounting courses (ACC 120, ACC 125 and another ACC course) and 6 credit hours in business courses (BUS 101 and any other BUS course); or AAS Business Administration – 12 credit hours in business courses (BUS 101 and 3 other BUS courses) and ACC 120 (4 Credits) or 9 credit hours in business courses (BUS 101 and 2 other BUS courses) and 7-8 credit hours in accounting courses (ACC 120 and 1 other ACC course).

A supervised, on-the-job, work experience related to the students course of study. Students must apply for this course as they would any job and obtain such information from the instructor or the business/accounting department chair. Students are required to attend seminars in addition to working 120 hours.

Canadian Studies

CAS 111 INTRODUCTION TO CANADA
(Offered upon sufficient demand) **3 CREDITS**

This course surveys and examines Canada with a multidisciplinary perspective. The course will provide an introduction to Canada from the perspectives of the social sciences and humanities. The course will cover Canada and the Canadian life in the terms of history, geography, politics, economics and culture. We will also discuss U.S.-Canada relations, as well as the uniqueness of Quebec.

Chemistry

CHE 100 INTRODUCTION TO FORENSIC SCIENCE

(Offered Fall, Spring and Summer)

4 CREDITS

Corequisite: ENG 101, college level reading or completion of ENG 101S and RDG 095

Gen Ed Category: Natural Sciences

This course is designed to provide an overview of the basic science concepts and techniques used in a forensic laboratory. The nature and significance of physical evidence and the underlying chemical and biological principles of the scientific techniques employed for analysis and the interpretation will be emphasized. Topics covered include hair, fiber and paint analysis, forensic toxicology and serology, blood spatter, arson and explosives, fingerprinting and forensic DNA analysis techniques. There are three hours of lecture and one two-hour laboratory per week.

CHE 101 APPLIED CHEMISTRY

(Offered Fall, Spring and Summer)

4 CREDITS

Prerequisites: ENG 099 and MAT 100 or equivalent.

Corequisites: MAT 101 or higher, ENG 101, college level reading or completion of ENG 101S and RDG 095

Gen Ed Category: Natural Sciences

This is a basic chemistry course appropriate for non-science majors, elementary education majors, and students in pre-nursing. Students learn basic concepts and the vocabulary used in chemistry as well as how to apply concepts to quantitative problems. The topics covered include measurement, atoms, molecules, mass, energy, naming compounds, acids and bases, and basic organic chemistry concepts. There are three hours of lecture and one two-hour laboratory per week. Students who have received credit for CHE 111 or CHE 112 cannot subsequently receive credit for CHE 101. In the case that a student completes CHE 101 prior to completing CHE 111 or CHE 112, then CHE 101 will count as free elective credit only.

CHE 111 GENERAL CHEMISTRY I

(Offered Fall only)

4 CREDITS

Prerequisite: ENG 101, college level reading or completion of ENG 101S and RDG 095; MAT 104 or higher

Gen Ed Category: Natural Sciences

This course is the first course of a two-semester sequence which presents the concepts of general quantitative chemistry. The course will include measurement, stoichiometry, thermochemistry, the periodic table, introduction to acids and bases, reduction and oxidation, ionic and covalent bonding, molecular structure, VSEPR, and MO theory.

There are three hours of lecture and one two-hour laboratory per week. Students who have received credit for CHE 111 or CHE 112 cannot subsequently receive credit for CHE 101. In the case that a student completes CHE 101 prior to completing CHE 111 or CHE 112, then CHE 101 will count as free elective credit only. Students are strongly advised to take SCI110 during the first seven week offering along with CHE111 in the given semester or take SCI110 prior to taking CHE111.

CHE 112 GENERAL CHEMISTRY II

(Offered Spring only)

4 CREDITS

Prerequisite: CHE 111 or equivalent

Gen Ed Category: Natural Sciences

This is a second semester course in a two-semester sequence which presents the basic laws and concepts of general quantitative chemistry. This course will focus on the principles

of reactivity of solids, liquids and gases with respect to chemical kinetics, chemical equilibrium, acid-base chemistry, precipitation reactions, entropy, free energy, red-ox chemistry, and an introduction to nuclear chemistry. There are three hours of lecture and one two-hour laboratory per week.

CHE 241 ORGANIC CHEMISTRY I

(Offered upon sufficient demand)

4 CREDITS

Prerequisite: CHE 112 or equivalent

This course is the first course of a two-semester sequence of basic organic chemistry covering saturated, unsaturated and aromatic hydrocarbons, alkyl halides, their reaction, structure, reaction mechanisms, stereochemistry, mass spectrometry, and spectroscopy. There are three hours of lecture and one two-hour laboratory per week.

CHE 242 ORGANIC CHEMISTRY II

(Offered upon sufficient demand)

4 CREDITS

Prerequisite: CHE 241 or equivalent

This course is the second course of a two-semester sequence of basic organic chemistry covering aromatic reactions, the chemistry of functional groups: alcohols and thiols, ethers, epoxides and sulfides, aldehydes and ketones, carboxylic acids, amines, and some biological compounds. There are three hours of lecture and one two-hour laboratory per week.

CHE 260 INSTRUMENTAL ANALYSIS

(Offered upon sufficient demand)

4 CREDITS

Prerequisite: CHE 112 or equivalent

This course provides an intensive study of instrumental analysis for the evaluation, separation, isolation and identification of the chemical components of a variety of both pharmaceutical and environmental samples. Introductory topics covered are measurement, sampling protocol, methods involving preparation of standards and the basic components common to most instruments. Specific topics deal with sample preparation, instrument design, calibration, operation, data collection, spectral analysis and troubleshooting for each instrument being studied. The instruments used in this course are UV/VIS, FITR, AA, GC/MS and HPLC. There are two hours of lecture and one three-hour laboratory per week.

CHE 280 BLOODSTAIN PATTERN ANALYSIS

(Offered upon sufficient demand)

3 CREDITS

Prerequisite: CHE 100

This course provides a basic and fundamental knowledge in the field of bloodstain pattern interpretation and illustrates the scientific principles and practical application of bloodstain pattern interpretation to actual casework. Emphasis is placed on the correct observation, documentation and interpretation of bloodstain patterns. Upon completion of this course students will have acquired an understanding of how bloodstain pattern analysis can assist in the investigation of crime scenes involving blood spatter. The curriculum follows the recommended 40-hour course curriculum set forth by the International Association of Bloodstain Pattern Analysts.

Chinese

CHI 101 ELEMENTARY MANDARIN CHINESE I

(Offered upon sufficient demand)

3 CREDITS

Gen Ed Category: Foreign Language.

Elementary Mandarin Chinese I is designed for the beginning student with no previous experience in Chinese. The main objectives of this course are to help students develop effective communication skills in Chinese through the elementary development of the four basic language skills, listening, speaking, reading and writing (simplified Chinese characters),

while introducing and critically examining cultural beliefs, values and aspects of everyday life in Chinese-speaking nations.

CHI 102 ELEMENTARY MANDARIN CHINESE II
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: CHI 101

Gen Ed Category: Foreign Language.

Elementary Mandarin Chinese II is a direct continuation of CHI 101 with further development of the four language skills to a high novice level and continued introduction to Chinese culture.

College Success Seminar

CSS 101 COLLEGE SUCCESS SEMINAR
(Offered upon sufficient demand) **1 CREDIT**

This course is designed to help students develop and enhance skills necessary for college success. Emphasis is placed on student self-reflection and success strategy application. Topics of individual and group exploration include campus resources, study skills, goal setting, learning styles, time management, and diversity. Students will identify individual academic and career goals and work to develop practical strategies to achieve these goals.

Communication

COM 100 COMMUNICATION AND LIFE SKILLS
(Offered upon sufficient demand) **3 CREDITS**

This course is designed to help students develop a fuller understanding of themselves and their interactions with other people. As an entry-level hybrid course, it may include many of the basic areas of the field of communication, such as interpersonal (communicating with self), verbal and non-verbal, intercultural, listening, interpersonal (dyadic or one-on-one), small group, leadership, public speaking, and organizational/business communication skills that should help students to become more effective and at ease in academic, social, work and family situations. (Note: Students may not receive credit for both COM100 and COM226.)

COM 101 PUBLIC SPEAKING
(Offered Fall and Spring) **3 CREDITS**

Gen Ed Category: Basic Communication [Oral Expression]

In this introductory course, students will learn theories and techniques of writing effective speeches that are audience-centered, and they will participate in the performance, observation, and critical evaluation of public speaking presentations. This course offers students the opportunity to understand and to improve public communication skills by writing and delivering a minimum of four speeches during the semester. These may include (but are not limited to): speaking to inform, speaking to persuade, speaking for special occasions, and speaking in small groups. At least one of these speeches must include the use of visual aids. Also, students must submit for evaluation a minimum of one written listening critique.

COM 226 INTRODUCTION TO HUMAN COMMUNICATION
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: ENG 101

This course will provide an introduction to communication studies, beginning with the process of communication inquiry and the history of the discipline. The course is a survey of the communication field, including such topics as: perception, verbal and nonverbal language, listening, communication climates and cultures, intrapersonal and interpersonal communication, small group communication, organizational

communication, public speaking, mass media, and emerging technologies and digital media. (Note: Students may not receive credit for both COM100 and COM226.)

Computer Science

CSC 101 COMPUTER ORIENTATION
(Offered Fall and Spring) **1 CREDIT**

This course covers the computer terminology, computer hardware components and accessories, and the history of computers. Students will also get a brief hands-on introduction to word-processing and spreadsheet applications.

CSC 102 INTRODUCTION TO MICROCOMPUTER APPLICATIONS
(Offered Fall, Spring and Summer) **3 CREDITS**

This course focuses on the latest application software and operating systems used in the business world. The course will prepare students to be intelligent users of computers and to understand the basics of word processing, spreadsheets, database, and the Internet through "hands-on" laboratory experiences. This course fulfills the SUNY General Education requirement for the Information Management Competency.

CSC 121 FUNDAMENTAL CONCEPTS OF COMPUTING
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: placement into MAT 101 or higher.

This course introduces students to the fundamental ideas in computer programming. Students will be exposed to both object oriented and non-object oriented programming languages. Topics include flow charts, variables, loops, if statements, events, string commands and functions. Major emphasis is placed on problem solving, sound programming techniques, and good program design.

CSC 152 COMPUTER SECURITY & SOCIETY
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: placement into MAT 101 or higher.

This course explores the field of computer security on a non-technical level. The course will discuss the importance and role of security as computer networking becomes more tightly integrated with society. The course will examine the ethical issues related to computer security including privacy, identity theft, and liability.

CSC 201 ADVANCED SOFTWARE APPLICATIONS
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: CSC 102 or permission of instructor.

This course is designed to give students a thorough exposure to the advanced computer software skills that employers are seeking. In addition, it will satisfy all the objectives for the MCAS (Microsoft Certified Application Specialist) certification. The MCAS Program is an international certification for users of the Microsoft Office products to demonstrate their skills in Word, Excel, PowerPoint, and Access. The certification provides businesses with a benchmark for skills assessment for prospective employees and a measureable assessment of training and/or experience for current employees; also, it provides potential employees with a valuable credential that enhances their productivity in the workforce.

CSC 202 DATABASE SYSTEMS
(Offered Fall only) **3 CREDITS**
Prerequisites: CSC 121

This is a comprehensive course in database management with a significant focus on, database design and application development. Topics include advanced queries, SQL, data entry

forms, relational reports, database programming, database normalization, and relational database design.

CSC 215 WEB DESIGN & PROGRAMMING
(Offered Fall and Spring) **3 CREDITS**

This course will enable students to design, develop and maintain a website on the Internet. Students shall learn the basics of graphical editing and manipulation, HTML coding, website construction, uploading, maintenance and ongoing administration. Exercises and projects will allow students to apply the principles of web design to their own sites that will be created in the course.

CSC 219 DEVELOPING MOBILE APPLICATIONS
(Offered Fall and Spring) **3 CREDITS**
Prerequisites: CSC 121

This course will teach the fundamental programming principles for mobile applications using the Android Platform. The course covers mobile application development phases, terminologies, application design, and coding using a hands-on approach. Students will create and deploy several simple mobile applications during the semester. Each student will design and implement an application for the final project.

CSC 217 COMPUTER PROGRAMMING
(Offered Spring only) **3 CREDITS**
Prerequisite: CSC 121

This course teaches computer programming using an object oriented programming language to solve a variety of different problems. Topics include program design, program documentation, public and private variables, conditional statements, loops, functions, subroutines and arrays.

CSC 220 OPERATING SYSTEMS
(Offered Fall and Spring) **3 CREDITS**

In this course students will build a solid foundation of knowledge in the most widely used operating systems for personal computers. Students will learn to install, configure and troubleshoot operating systems. Students will also learn how to use operating systems for file management, memory management and a variety of other tasks.

CSC 222 DATABASE WEB APPLICATIONS
(Offered Spring only) **3 CREDITS**
Prerequisites: CSC 121, CSC 202 and CSC 215

This course integrates Web Design, Database, and Programming. Students will learn how to create and deploy database driven web applications. Students will also work with SQL to create and modify databases used in the web applications.

CSC 225 COMPUTER HARDWARE
(Offered Fall and Spring) **3 CREDITS**

In this course students will learn the function of all major hardware components in the personal computer. Students will also learn how to diagnose and troubleshoot computer hardware and peripheral devices. Appropriate safety measures for working on personal computers will also be covered.

CSC 230 INTRODUCTION TO NETWORKING
(Offered Fall and Spring) **3 CREDITS**

In this course students will learn skills necessary to plan, install and troubleshoot a network in a corporate environment.

CSC 240 NETWORKING II
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: CSC 230

This course extends the concepts presented in Introduction to Networking (CSC 230) through additional study of network implementations coupled with hands-on activities. Topics

include the study of network design, administration, security and troubleshooting. In addition to those topics, router configurations will be examined. Activities include hands-on application and practice in the lab environment that covers the theories discussed in the classroom.

CSC 250 COMPUTER SECURITY I
(Offered Fall only) **3 CREDITS**

In this course, students will learn the introductory concepts of computer and network security. Topics include authentication methods, remote access security, network security design, network security devices, cryptography, and disaster recovery plans. The course covers most of the objectives of the CompTIA Security+ certification exam. The course is taught by a combination of hands-on activities, audio-visual materials, and lecture.

CSC 260 COMPUTER SECURITY II
(Offered Spring only) **3 CREDITS**
Prerequisite: CSC 250

In this course, students will learn additional concepts of computer and network security not covered during the Intro to Computer Security course (CSC 250) and covers the remaining objectives of the CompTIA Security+ certification exam.

CSC 280 TECHNOLOGY PRACTICUM SEMINAR
(Offered Spring only) **3 CREDITS**
Prerequisite: Students must have completed at least 12 credits of CSC courses.

A supervised, on-the-job, work experience related to the student's course of study. Students can obtain information about approved internship sites from the instructor of the course or the technology department chair. Students must apply for the internship portion of the course as they would any job. Students are required to attend weekly seminars in addition to working 120 hours at the internship site.

Criminal Justice

CRI 101 INTRODUCTION TO CRIMINAL JUSTICE
(Offered Fall and Spring) **3 CREDITS**

This course is a study of the criminal justice system's philosophical and historical background; with special emphasis on the heritage of the British and American Criminal Justice systems, the government role of law enforcement and correction, and the role of various agencies of our criminal justice system.

CRI 102 CRIMINOLOGY
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: Placement in ENG 101.

This course is a study of crime as a social phenomenon and how programs of social control affect and are affected by crime. It analyzes the conditions under which criminal laws develop and the causes of crime. It consists of the study of crime and control of crime including processes in criminal behavior, punitive policies and social structure.

CRI 103 JUVENILE DELINQUENCY
(Offered as needed) **3 CREDITS**
Prerequisite: Placement in ENG 101.

This course explores the problems of juvenile delinquency and the juvenile justice system in American society. Concepts of delinquency causation and control are discussed in both historical and modern perspectives. The interrelationship of delinquency and family, school, religion and society in general are explored. The roles of the juvenile court personnel, including the prosecutor, defense counsel, the judge and the

juvenile probation officer are evaluated as are the concepts of community-based and institutional corrections. Special delinquency problems such as gangs, substance abuse and juveniles in adult courts are explored.

CRI 201 CRIMINAL LAW
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: CRI 101

This course undertakes an examination of crime and the elements of offenses. Various mental states, capacities to commit crime, and defenses to criminal liability are intensely studied. The course includes a detailed study of some major crimes as defined in the New York State Penal Law.

CRI 203 CRIMINAL PROCEDURE LAW
(Offered Spring only) **3 CREDITS**
Prerequisite: CRI 101

This course is an overview of criminal procedure law including: constitutional provisions, rules of evidence, trial and pre-trial processes, arrest, search and seizure, admissibility of admissions and confessions.

CRI 204 PROBATION & PAROLE
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: CRI 208 or permission of instructor.

This course includes the history and philosophy of probation and parole: the function, coordination and operation of probation and parole boards. Attention is focused on utilization of parole and probation as tools of social control with special emphasis on their sociological implications.

CRI 205 MANAGEMENT & SUPERVISION IN CRIMINAL JUSTICE
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: CRI 101

This course is designed to offer the Criminal Justice student an understanding of the organizational aspects of a police department, how the structure of a department affects the outcome, as well as how proper organizational design will attain a desired community service. The early history of organized policing, including department make-up and objectives will be discussed and followed through the evolution of today's modern multifaceted police department structure.

CRI 206 FAMILY VIOLENCE
(Offered Spring only) **3 CREDITS**
Prerequisite: CRI 101, PSY 101, SOC 101, or HUS 101

This course examines the moral, social and ethical implications of family violence. The focus is on understanding the dynamics and causes of family violence from social, legal, and medical perspectives. Medical and legal responses to family violence will be explored as well as efforts of community organizations and social agencies in preventing family violence and in protecting its victims. This course can be used for criminal justice, social science or elective credit.

CRI 207 CRIMINAL INVESTIGATION
(Offered in Fall upon sufficient demand) **3 CREDITS**
Prerequisite: CRI 101

This course is designed to provide the student with a working knowledge of the academic, theoretical and practical application of criminal investigative techniques related to the lawful acquisition and development of evidence, prior to the introduction of advanced or specialized criminalistics and forensic sciences. The course has been upgraded to include basic instruction in conducting preliminary investigations and the collection and reporting of intelligence related to terrorist organizations. The course will also focus on the employment of applicable federal statutes in conjunction with covert and overt investigative techniques.

CRI 208 CORRECTIONS THEORY & PRACTICE
(Offered Spring) **3 CREDITS**
Prerequisite: CRI 101

This course is a study program for the treatment of criminal offenders: the courts, probation and parole problems, and a survey of the theories and practices in today's penal system.

CRI 210 POLICE OPERATIONS
(Offered in Spring upon sufficient demand) **3 CREDITS**
Prerequisite: CRI 101

This course teaches the line activities of law enforcement agencies with emphasis on the patrol officer and the patrol function. Various calls for service, other activities of the patrol officer and the proper recommended procedures for dealing with these situations in light of legal and constitutional restrictions are discussed.

CRI 213 SECURITY THEORY & PRACTICE
(Offered Fall only) **3 CREDITS**
Prerequisite: CRI 101

This course teaches an understanding of the role security plays in modern society. The historical, legal, philosophical, and operational aspects of security will be examined. The various forms of settings for security operations are discussed with the administrative, personnel and physical needs of each.

CRI 214 ETHICS IN CRIMINAL JUSTICE
(Offered Spring only) **3 CREDITS**
Prerequisite: CRI 101 and completion of 24 credits.

This course covers theoretical and practical aspects of criminal justice ethics including examination of the ethical duties of law enforcement officers, other criminal justice officials, and administrators. This is an applied ethics course that utilizes a practical approach to analyzing ethical dilemmas that criminal justice practitioners face in the real world.

CRI 280 FIELD PRACTICUM IN CRIMINAL JUSTICE
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: Second year Criminal Justice students or permission of instructor.

This practicum is a unique plan of educational enrichment. It is designed to enhance self-realization and direction by means of integrating classroom study with planned and supervised experience. It offers the student educational and vocational learning situations in criminal justice agencies. Field experience: approximately 180 hrs. per semester.

Economics

ECO 101 PRINCIPLES OF MICROECONOMICS
(Offered Fall and Spring) **3 CREDITS**
Prerequisites: MAT 100 or placement in MAT 103 or higher.

Gen Ed Category: Social Sciences

This course is an analytical introduction to the mechanisms for allocating economic resources and distributing income. The course examines supply and demand, elasticity applications, price determination and utility theories, costs and outputs in various market structures, regulation and deregulation of business, financial markets, the effect of globalization on the micro economy, the operation of factor markets and international trade relations, while assessing government policies intended to alter resource allocation improve efficiency and redistribute income.

ECO 102 PRINCIPLES OF MACROECONOMICS
(Offered Fall and Spring) **3 CREDITS**
Prerequisites: MAT 100; placement in
MAT 103 or higher.

Gen Ed Category: Social Sciences

This course is a survey introduction to economic aggregates and their determinants. The course examines market relationships, aggregate performance objectives and measurements, national income determination theories, money and the banking system, fiscal and monetary policies and productivity and economic growth. Issues analyzed include the effectiveness of stabilization policies, the inflation-unemployment trade off, and the deficit dilemmas as the global implications of U.S. macroeconomic policies and the effects of U.S. and world free-trade agreements.

Electronics Technology

ETE 101 ELECTRICAL CIRCUITS I
(Offered Fall and Spring) **4 CREDITS**
Prerequisite: Placement into MAT 101 or higher.

This course presents the fundamentals of electricity as they apply to direct and alternating current circuits. Topics include the concepts of voltage, current, resistance, and power and their application to series and parallel circuits. Magnetism and the concepts of capacitance and inductance are also included. Laboratory activities allow students to gain hands-on experience making measurements on circuits and interpreting the data collected. There are three hours of lecture and two hours of laboratory per week. Students continuing on to ETE 102 will need to take MAT 105 concurrently with ETE 101.

ETE 102 ELECTRICAL CIRCUITS II
(Offered Spring only) **4 CREDITS**
Prerequisite: ETE 101 and MAT 105 or equivalent
Corequisite: MAT 205 or equivalent

This course is devoted to the analysis of AC circuits building on the concepts developed in the Electrical Circuits I course. Topics include network theorems, transformers, and analysis of RC, RL, and RLC circuits. The operation of filters and polyphasic power generation are also included. Laboratory activities allow students to gain hands-on experience making measurements on circuits and interpreting the data collected. There are three hours of lecture and two hours of laboratory per week.

ETE 103 COMPUTER PROGRAMMING FOR ELECTRONICS
(Offered Fall only) **2 CREDITS**

This course is devoted to the study of the C programming language. C is used as a vehicle for problem solving in future courses in the Electronics Technology and Computer Technology Programs. Topics include input/output operations, functions, control statements, arrays and strings, and pointers.

ETE 104 ELECTRONICS I
(Offered Spring only) **4 CREDITS**
Prerequisites: ETE 100 or ETE 101 and
MAT 105 or equivalent.

This course is the first of a three semester sequence in electronics. Topics include diodes and their applications, bipolar transistors, and field effect transistors. Biasing techniques are analyzed through the construction of load lines and calculation of quiescent points. A laboratory is included where students will become proficient using test equipment, and construct and test circuits described in class. There are three hours of lecture and two hours of laboratory per week.

ETE 105 DIGITAL ELECTRONICS I
(Offered Spring only) **3 CREDITS**
Prerequisite: ETE 100 or ETE 101

This first course in digital electronics includes number systems, Boolean algebra, the logic gates used in digital circuits and flip-flop devices. Applications of circuits critical to digital systems are emphasized. There are two hours of lecture and two hours of laboratory per week.

ETE 106 PHOTOVOLTAIC SYSTEMS THEORY AND DESIGN
(Offered Fall only) **3 CREDITS**

This course is designed to instruct the student in the theory and design of photovoltaic systems and their practical installation and operation. The course includes semi-conductor operational theory, properties of silicon and semi-conductor material, solar cell manufacturing and companies involved, history of solar power and its uses, photovoltaic systems safety, site assessments, system design, and adapting mechanical and electrical design. Layout skills are developed and the National Electrical Code is examined. There are two hours of lecture and two hours of laboratory per week.

ETE 107 PHOTOVOLTAIC SYSTEMS INSTALLATION AND MAINTENANCE
(Offered Spring only) **3 CREDITS**
Prerequisite: ETE 106

This course is designed to instruct the student in the installation and maintenance of photovoltaic systems. The course includes the installation of components and sub-systems on site, concerns with owners, utilities, and permit agencies, completion of lists of electrical components and material, array alignment based on location, building and roof design, aesthetics, wind loading, equipment support, labeling of equipment and components, methods and procedures for visual system checks, open circuit voltage testing, short circuit tests, system specific tests, calculating efficiency factors, battery maintenance, various test equipment, safety concerning testing of equipment components and batteries, system start up and shut down, and emergency operations. There are two hours of lecture and two hours of laboratory per week.

ETE 202 INTRODUCTION TO INDUSTRIAL ELECTRICITY
(Offered Spring only) **3 CREDITS**
Prerequisite: ETE 100 or ETE 101

Teaches and demonstrates control circuits, switch gears, protective devices, buses, breakers, and power distribution systems found in the industrial environment. Control circuits for both DC and AC motors are explained along with basic motor theory. Common power plant distribution systems are studied. The theory, use, and programming of Programmable Logic Controller (PLC) systems in industry is emphasized and practiced. Students will also study the National Electrical Code. There are two hours of lecture and two hours of laboratory per week. The two-hour lab will provide practical, hands-on experience for students as they are required to design, build, test, troubleshoot, and repair various circuits and devices as well as programming PLC.

ETE 204 ELECTRONICS II
(Offered Fall only) **4 CREDITS**
Prerequisites: ETE 102 and ETE 104

This second course of the electronics sequence is devoted to the analysis of amplifier circuits. Various single stage and cascaded amplifier circuits are studied using bipolar transistors, junction field effect transistors (JFETS) and metal oxide field effect transistors (MOSFETS). The response of amplifier circuits to a range of frequencies is also studied. There are

three hours of lecture and two hours of laboratory per week.

ETE 205 DIGITAL ELECTRONICS II

(Offered Fall only)

4 CREDITS

Prerequisite: ETE 105

This course includes analysis of circuits for digital arithmetic, counters, registers, interfacing digital and analog systems and memory devices. Characteristics of the various families of IC's are also discussed. There are three hours of lecture and two hours of laboratory per week.

ETE 207 MICROCONTROLLER FUNDAMENTALS

(Offered Fall only)

4 CREDITS

Prerequisites: ETE 103 and ETE 105

In this course students study the PIC microcontroller, its architecture, and instructions set. Students write programs in assembly language and C to control simple electronic circuits using this device. There are three hours of lecture and two hours of laboratory per week.

ETE 208 OPERATIONAL AMPLIFIERS

(Offered Spring only)

3 CREDITS

Prerequisite: ETE 204

This is the third course of the electronics sequence. It is devoted to the study of the properties and characteristics of operational amplifiers, and how negative feedback affects their behavior. Both linear and non-linear applications are studied. There are two hours of lecture and two hours of laboratory per week.

English

**Developmental English courses or placement are a prerequisite for any English course above ENG 100.*

ENG 099 COMPOSITION FOUNDATIONS

(Offered Fall and Spring)

0 CREDITS

Required on the basis of placement test.

Students who place into ENG 099 are required to enroll in both ENG 101 and this supplemental course during the same semester. The course is designed to assist students in achieving success in ENG 101 by offering them supplemental support and instruction. The class will parallel the ENG 101 class to help students complete the assignments and acquire the college-level writing skills to meet the expectations of ENG 101. Upon successful completion of both ENG 099 and ENG 101, students will receive credit for ENG 101. *These companion courses replace the ENG 094 requirement.*

ENG 101 ENGLISH COMPOSITION

(Offered Fall, Spring and Summer)

3 CREDITS

Students must place into this class.

Gen Ed Category: Basic Communication [Written Expression]
This course is designed to help students acquire the skills they will need for academic success. They will learn to produce essays that are clear, concise, and unified. The writing process is emphasized. Students write papers both out of class, at least one of which requires outside sources and documentation, and in class.

ENG 102 LITERATURE & COMPOSITION

(Offered Fall, Spring and Summer)

3 CREDITS

Prerequisite: ENG 101

Gen Ed Category: Humanities; Critical Thinking Competency
This course is designed to introduce students to literature and to writing about literature. Since passing ENG 101 is a prerequisite to this course, students are expected to have mastered basic writing skills and be able to write an effective

essay. ENG 102 emphasizes oral and written analysis of poetry, fiction, and drama.

ENG 120 CRITICAL READING

(Offered upon sufficient demand)

3 CREDITS

Prerequisite: ENG 101. **Counts as**

Humanities credit or English credit.

This course enhances reading comprehension and analytical abilities in a variety of academic areas. It develops student skill in evaluating oral and written material, focuses on analysis of logic and evidence, strengthens critical thinking and communication skills through written critiques of expository prose, and builds general knowledge through interactive reading across disciplines regarding contemporary issues. This course fulfills the SUNY General Education requirement for the Critical Thinking Competency.

ENG 150 NEWSPAPER PRACTICUM

(Offered upon sufficient demand)

1-3 CREDITS

Prerequisite: Placement in ENG 101 or

successful completion of ENG 101S.

ENG 150 emphasizes all aspects of a college news publication, including news reporting and sports coverage, editorials, advertising, distribution, and layout and design. The course can be taken for 1, 2, or 3 credits and can be repeated for credit.

ENG 201 INTRODUCTION TO FICTION

(Offered Spring only)

3 CREDITS

Prerequisite: ENG 102 or permission of instructor.

This course is an introduction to the study of fiction. Students explore the historical development of fiction as a literary form and learn about the elements of fiction in order to read, interpret, and react critically. In addition, students analyze the interaction of these various elements to create a whole in a work of fiction. Through written and oral discussion of short stories and novels, students work to understand the relationship between author, fiction, and reader.

ENG 206 INTRODUCTION TO NEWSWRITING

(Offered Fall only)

3 CREDITS

Prerequisite: ENG 102 or permission of instructor.

This course is designed to teach the skills needed for writing print media. While the focus is on news writing (summary leads, inverted pyramid-style journalism), the course also covers news gathering, coverage of special beats, feature writing, journalism law and ethics. Students will report real events and learn to work on deadline.

ENG 210 EARLY AMERICAN LITERATURE

(Offered Fall only)

3 CREDITS

Prerequisite: ENG 102 or permission of instructor.

The course explores American literature from pre-colonial years to the Civil War. Readings include non-fiction, such as journals of exploration and captivity, political essays, sermons, and short and long fiction. The course follows chronological order and considers political, social, religious, and economic influences on writers. Students will read well-known authors such as Bradstreet, Franklin, Hawthorne, Thoreau, Whitman, and less widely-published minority writers.

ENG 211 MODERN AMERICAN LITERATURE

(Offered upon sufficient demand)

3 CREDITS

Prerequisite: ENG 102 or permission of instructor.

The course explores American literature from post-Civil War era to the present. Readings include non-fiction, poetry, drama, and short and long fiction. The course follows chronological order and considers political, social, religious, and economic

influences on writers. Students will read well-known authors such as Twain, James, B.T. Washington, Chopin, and Faulkner, and less widely-published minority writers.

ENG 220 MULTICULTURAL AMERICAN LITERATURE
(Offered upon sufficient demand) **3 CREDITS**

Prerequisite: ENG 102 or permission of instructor.

Gen Ed Category: Other World Civilizations

This course explores literature by Americans of Asian, African, Hispanic, and Native heritage. Readings include non-fiction, poetry, short stories, and novels. The course is designed to increase student awareness of the multicultural nature of American life and literature. The values and beliefs of non-European cultures in America are examined through the readings.

ENG 225 NINETEENTH & TWENTIETH CENTURY WORLD LITERATURE
(Offered Spring only) **3 CREDITS**

Prerequisite: ENG 102 or permission of instructor.

Gen Ed Category: Other World Civilizations

This course introduces students to an international collection of writers, cultures, and literature. Students read a variety of literary genres, and the course approaches literature as a vehicle for analysis and discussion of the global nature of writing and reading, as well as the diversities that the literature reflects.

ENG 231 CREATIVE WRITING
(Offered Spring only) **3 CREDITS**

Corequisite: ENG 102 or permission of instructor.

In this class, students will participate in guided writing across multiple genres, including poetry, short stories, non-fiction, and short drama. The coursework is designed to help develop students' creative voices and build their portfolios. Students will have the opportunity to share their work and receive peer feedback in a workshop setting.

ENG 232 CREATIVE WRITING WORKSHOP
(Offered Spring only) **3 CREDITS**

Prerequisite: ENG 231

In this course, students will develop creative works in a workshop setting, further refining their creative voice. Students will develop their writing through multiple revisions to finished manuscripts. Focus will be given to developing creative writing for the publishing process.

ENG 233 LITERATURE & FILM
(Offered upon sufficient demand) **3 CREDITS**

Prerequisite: ENG 102 or permission of instructor.

Literature and Film examines the relationship between literary and cinematic forms of narrative. Through the reading of selected short stories, plays, and novels, and the viewing of feature-length films, this course stresses the similarities and dissimilarities between the two art forms, as well as the nature and processes of adaptation. Students will also develop skills in film analysis and criticism in written responses to the films that are viewed.

ENG 234 SPECIAL STUDIES IN ENGLISH
(Offered upon sufficient demand) **3 CREDITS**

Prerequisite: ENG 102 or permission of instructor.

This is a flexible course in which an instructor teaches some aspect of literature, writing and language for which he or she has a special competence when there is sufficient student interest.

ENG 235 TECHNICAL WRITING
(Offered Fall, Spring and Summer) **3 CREDITS**

Prerequisite: ENG 101 or permission of instructor.
(Does not fulfill a humanities requirement.)

This course focuses on the forms of written communication required to obtain and hold a job, to participate in business, to report in technical and investigative fields, and to serve in community or professional organizations. Students will receive instruction and practice in writing summaries, correspondence, instructions, publicity releases, reports, brochures and proposals. Students will also learn to choose a format and style appropriate for their audience and purpose.

ENG 240 LITERATURE & NATURE
(Offered upon sufficient demand) **3 CREDITS**

Prerequisite: ENG 102 or permission of instructor.

This course examines the work of writers – traditional and contemporary – who respond to nature in ways that are scientifically informed, but also carry a personal voice and a concern for literary values. Students will read and respond to the writing of authors who record their observations of natural details, promote an appreciation of the natural environment, and relate a sense of human responsibility in the natural world. Since English 102 is a prerequisite for this course, students are expected to have acquired the skills necessary to write essays in response to literature and to actively participate in class discussions of the readings.

ENG 242 LITERATURE & POPULAR CULTURE
(Offered upon sufficient demand) **3 CREDITS**

Prerequisite: ENG 102 or permission of instructor.

This course examines genres of literary popular culture as expressions of how a given society views itself and the world. Examples include the western, the romance, horror, science fiction, and best-selling fiction. Writing assignments will require students to produce informed critical analysis of popular culture. Topics vary based on the instructor's special interest.

ENG 245 CHILDREN'S LITERATURE
(Offered upon sufficient demand) **3 CREDITS**

Prerequisite: ENG 102 or permission of instructor.

This course provides an introduction to various genres of children's literature and the important role literature plays in a child's development. Students will learn to apply evaluation criteria in choosing and reviewing the quality of literature selections. They will critique, both orally and in writing, a wide variety of literature for children and will establish and maintain a database of their work. They will also learn and demonstrate strategies for developing a child's interaction and response to literature.

ENG 250 ENGLISH LITERATURE 1800 TO THE PRESENT
(Offered Fall) **3 CREDITS**

Prerequisite: ENG 102 or permission of instructor.

English Literature 1800 to the Present is a study of British Literature from the Romantic period to the present. Readings include a variety of forms – from short stories, novels and essays, to letters and poetry – paying particular attention to themes (Revolution/War/Empire/Colonialism, the Rights of Women, Religion and Science, and the Role of the Artist). Students read works by such authors as Blake, Wordsworth, Austen, Hardy, Eliot, Yeats, Tennyson, and Woolf.

ESL (English as a Second Language)

Prerequisites: Non-native speaker of English. TOEFL test score below 500 and/or Clinton Placement Test or permission of instructor. ESL courses count as Humanities Elective Credit.

ESL 100 INTERMEDIATE COMPOSITION 6 CREDITS

(Offered upon sufficient demand)

This course is designed to introduce **non-native English speakers** the writing skills they will need in college. The course focuses on the writing process and developing writing skills in two areas: out-of-class compositions and in-class essay tests. Students learn to write short papers that are clear, concise, unified, and relatively free of mechanical and grammatical problems. Students write a minimum of eight papers, some out of class and at least two in class.

ESL 101 ADVANCED COMPOSITION 6 CREDITS

(Offered upon sufficient demand)

Gen Ed Category: Basic Communication. [Written Expression]
This course is designed to help **non-native English speakers** to acquire the college-level writing and language skills they will need for academic success. They will learn to produce essays that are clear, concise, and unified. The writing process and language skills at the advanced level are emphasized. Students write papers both out of class and in class. At least one paper requires outside sources and documentation. Near the end of the course, students will complete a final timed in-class essay which will be evaluated by the English faculty to assess the writer's preparedness to move on to other college-level writing courses. This course satisfies the ENG 101 basic communication requirement.

ESL 110 AMERICAN CULTURE 3 CREDITS

(Offered upon sufficient demand)

This class is to be taken by non-native English speakers in their first semester. This course is designed to introduce American idioms, grammar and writing, as well as to familiarize students with American culture and guide students through the stages of the acculturation process.

ESL 120 INTERMEDIATE LISTENING AND SPEAKING 3 CREDITS

(Offered upon sufficient demand)

This course designed to teach **non-native English speakers** the basics of the pronunciation of American English (the sounds, intonation, stress, and rhythm). The course is designed to develop students' clarity of speech and listening comprehension skills through a variety of listening/speaking activities.

ESL 121 ADVANCED LISTENING AND SPEAKING 3 CREDITS

(Offered upon sufficient demand)

This course is designed to improve **non-native English speakers** to improve listening comprehension, speaking, note-taking, and discussion skills at the advanced level to prepare for academic coursework. Students will develop listening strategies and critical thinking skills through lectures, discussions, debates, readings, and writing assignments on cultural topics, and gain a deeper understanding of North American culture.

ESL 130 INTERMEDIATE READING SKILLS 3 CREDITS

(Offered upon sufficient demand)

This course is designed to help **non-native English speakers** acquire the intermediate level reading skills necessary for success in college. This course provides students with effective strategies for increasing vocabulary, taking notes, and reading college-level texts. The course promotes active reading skills that guide students from basic literal understandings of a text to interpretations, including the formation of inferences, conclusions and judgments.

ESL 131 ADVANCED READING 3 CREDITS

(Offered upon sufficient demand)

This course is designed to teach **non-native English speakers** the advanced level of reading skills necessary for success in college. This course provides students with effective strategies for increasing academic vocabulary and for developing active reading skills that guide students from basic literal understandings of a text to higher-order thinking skills of analysis and synthesis, interpretation, evaluation, and application.

Environmental Technology

ENV 101 ENVIRONMENTAL SCIENCE 4 CREDITS

(Offered Fall, Spring and Summer)

Corequisite: ENG 101, college level reading or completion of ENG 101S and RDG 095

Gen Ed Category: Natural Sciences

This course is an interdisciplinary science course that provides an overview of environmental processes, human impact on the global environment, and solutions to environmental problems. There will be a strong emphasis on environmentally sustainable practices, pollution prevention and control, conservation and ecological factors, economic issues and influences on environmental policies, and renewable versus nonrenewable energy and mineral resources. There are three hours of lecture and one two-hour laboratory per week.

ENV 210 ENVIRONMENTAL TECHNOLOGY 4 CREDITS

(Offered Fall only)

Prerequisite: ENV 101, GEL 101, or MET 101; MAT 105 or equivalent.

Gen Ed Category: Natural Sciences

The physical and chemical nature of soil, water, and air in a variety of geologic settings is the background for applying practical methods of site characterization. Topics include pollution sources and the fate of pollutants in the environment. Emphasis is placed on technologies for sampling environmental media, handling hazardous materials, pollution prevention and cleanup, and occupational health safety. Concepts are explored from the perspective of the environmental manager. Field methods and the use of Global Positioning System (GPS) and Geographic Information Systems (GIS), as tools used by environmental scientists, will be integrated into the course. There are three hours of lecture and one two-hour laboratory per week.

ENV 211 WATER QUALITY OPERATOR 1 CREDIT

(Offered Spring only)

Prerequisite: ENV 210; **Corequisite:** ENG 101, college level reading or completion of ENG 101S and RDG 095

Water quality standards are largely set by two major federal environmental statutes: the Safe Drinking Water Act, which specifies standards for drinking water, and the Clean Water Act, which regulates the discharge of pollutants. This course

describes the guidelines established by federal, state and local regulations and their effect on plant operations. Instrumentation used to sample and measure water quality, and make repairs to valves, pumps, and other equipment are discussed.

ENV 214 INTERNSHIP/FIELD TRAINING
(Offered Fall and Spring) **1 CREDIT**
Prerequisites: ENV 101 and ENV 210;
GPA must be 2.5 or above
Corequisites: ENV 220 and ENV 230

The ENV Internship will provide students with a supervised, on-the-job, work experience related to environmental science technology. Students are required to work a minimum of forty hours at a sponsor site and meet with the instructor for approximately four class hours during the semester. A GPA of 2.5 will be required for students seeking to participate in the internship course.

ENV 215 ENVIRONMENTAL SITE ASSESSMENT
3 CREDITS
Prerequisite: ENV 210; **Corequisite:** ENG 101, college level reading or completion of ENG 101S and RDG 095

This course examines recognized environmental conditions and good commercial and customary practice in the United States of America. Conducting an environmental site assessment of a parcel of commercial real estate with respect to the range of contaminants within the scope of Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) (42 U.S.C. 9601) and petroleum products will be addressed. The course will also provide students with a background on the National Environmental Policy Act (NEPA) and the actions required under NEPA. Students will examine, analyze, and debate Environmental Assessments (EA) and Environmental Impact Statements (EIS).

ENV 216 HAZWOPER/HAZMAT
2 CREDITS
Prerequisite: ENG 101, college level reading or completion of ENG 101S and RDG 095

HAZWOPER (Hazardous Waste Operations and Emergency Response) is at the intersection of three Federal regulatory agencies (EPA, OSHA, DOT) and includes several career fields (science, technology, engineering, medicine, toxicology, law, psychology, organizational management, loss prevention, QA/QC, construction, waste management, etc.). The purpose of this course is to ensure awareness and promote safety among employees who may be exposed to chemical hazards in the work-site. This course meets the mandated OSHA requirements for the classroom training portion of personnel engaged in hazardous waste operations as outlined in 29 CFR 1910.120. This certification is a job requirement for many entry-level positions in the area of environmental consulting.

ENV 218 BASIC ENVIRONMENTAL HEALTH & SAFETY TRAINING
3 CREDITS
Prerequisite: ENG 101, college level reading or completion of ENG 101S and RDG 095

This course will provide students with several entry-level certifications required by OSHA (Occupational Safety & Health Administration) for workers in many environmental-related industries. The certificate training programs are nationally sanctioned by the Community College Consortium for Health & Safety Training. Certificates will be issued effective the final day of classes and typically require an annual refresher.

ENV 220 SEMINAR IN ENVIRONMENTAL ISSUES
(Offered Spring only) **1 CREDIT**
Prerequisite: ENV 101, college level reading or completion of ENG 101S and RDG 095

Gen Ed Category: Basic Communication [Oral Expression]
This course provides the student with an opportunity to discuss in depth a local environmental issue that is indicative of our region. The students will work together to analyze the environmental issue from all aspects. All public documents related to the issue will be reviewed and students will participate in any public hearing or forum related to the issue.

ENV 240 GIS AND REMOTE SENSING
(Offered upon sufficient demand) **4 CREDITS**
Prerequisite: DRO 101 and ENV 210

Students will be given a practical introduction to the basic principles of geographic information systems (GIS) and remote sensing with an emphasis on the collection and processing of digital images from drones. Students will learn the structure and format of GIS data, data sources, map scales and projections, spatial analysis, and basic digital image interpretation and manipulation. There will be a strong focus on current issues and applications of GIS, including interdisciplinary topics in the field of environmental science. The course is strongly computer-based, and students will gain experience in the use of ArcGIS software to solve real-world problems.

Foundations for College Success

FCS 101 FOUNDATIONS FOR COLLEGE SUCCESS
(Offered upon sufficient demand) **3 CREDITS**

This course is designed to assist the student in obtaining the skills, services and self-awareness needed to reach his/her educational and life objectives. Topics include self-assessment, Clinton student services and resources, goal setting, self-management, cultural awareness, study strategies and, critical thinking.

French

FRE 101 ELEMENTARY FRENCH I
(Offered Fall and Spring) **3 CREDITS**

Gen Ed Category: Foreign Language
Elementary French I is designed for the beginning student with no previous experience in French. The main objectives of this course are to help students develop effective communication skills in French through the elementary development of the four basic language skills (listening, speaking, reading and writing), while focusing on and critically examining cultural beliefs, values and aspects of everyday life in Francophone societies.

FRE 101P ELEMENTARY FRENCH I FOR THE PROFESSIONS
(Offered upon sufficient demand) **3 CREDITS**

Gen Ed Category: Foreign Language
This course is designed for the beginning student with no previous experience in French. The main objectives of this course are the elementary development of the four basic language skills (listening, speaking, reading and writing), while focusing on using culturally appropriate French in basic professional (social services, health care, law, tourism, and business) situations. This course is equivalent to FRE 101.

FRE 102 ELEMENTARY FRENCH II
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: FRE 101 or 2-3 units of high school French, or equivalent.

Gen Ed Category: Foreign Language
Elementary French II is a direct continuation of FRE 101 with further development of the four language skills to a high novice level and continued introduction to Francophone culture.

FRE 201 INTERMEDIATE FRENCH I
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: FRE 102 or 4 units of high school French, or equivalent.

Gen Ed Category: Foreign Language
Intermediate French I is a second year, first semester course designed for students with previous experience in French. The main objectives of this course are to help students develop effective communication skills in French through the development of the four basic language skills (listening, speaking, reading and writing) and cultural knowledge.

FRE 202 INTERMEDIATE FRENCH II
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: FRE 201 or 5 units of high school French, or equivalent.

Gen Ed Category: Foreign Language
Intermediate French II is a direct continuation of FRE 201 with further development of the four language skills and cultural knowledge to a high intermediate level.

FRE 250 QUÉBEC CULTURE & SOCIETY
(Offered upon sufficient demand) **3 CREDITS**
Prerequisites: Completion of ENG 093 or ENG 100, or placement into college level reading; and placement into ENG 101.

Gen Ed Category: Humanities and Western Civilization
The course offers an in-depth study of the Québec people, their land, their history, their traditions, and their culture, and examines its relationship and influence upon the cultural heritage of northern New York. Students will examine these topics in a seminar format with an interdisciplinary approach, utilizing a variety of resources, including selected literature, newspaper articles, films, music, internet sites, television broadcasts, and an optional field trip to Québec.

Gender and Women's Studies

GWS 101 INTRODUCTION TO GENDER AND WOMEN'S STUDIES
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: Placement in ENG 101.

Gen Ed Category: Humanities
This course offers an introduction to Gender and Women's Studies, and interdisciplinary academic field that explores critical questions about the meaning of gender in society. The primary goal of this course is to familiarize students with key issues, questions, and debates in Women's and Gender Studies scholarship, both historical and contemporary. Gender scholarship critically analyzes themes of gendered performance and power in a range of social spheres, such as law, culture, education, work, medicine, social policy and the family.

Geography

GEG 121 HUMAN GEOGRAPHY
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: Completion of ENG 101S or placement in ENG 101.

This course introduces students to fundamental concepts, skills, and practices of human geography in the world today; the populating and development of the Western Hemisphere will be emphasized. Topics for discussion may include globalization, population and migration, political and economic systems, and culture including language, religion, gender, race, and ethnicity.

Geology

GEL 101 PHYSICAL GEOLOGY
(Offered Fall only) **4 CREDITS**
Prerequisite: Placement into ENG 101, college level reading or completion of ENG 101S and RDG 095
Corequisite: MAT 100 or equivalent

Gen Ed Category: Natural Sciences
This is an introductory course that covers Earth materials and the processes that develop and modify the composition, structure, and topography of the earth. Included is an overview of minerals, rocks, volcanoes, earthquakes, plate tectonics, geologic time, water resources, glaciation, structural geology, and energy and mineral resources. There are three hours of lecture and one two-hour laboratory per week.

German

GER 101 ELEMENTARY GERMAN I
(Offered upon sufficient demand) **3 CREDITS**

For the beginning student with no previous experience in German. The course focuses on effective communication in everyday situations. The main objectives of German 101 are the elementary development of the four basic language skills (listening, speaking, reading, and writing), and introducing students to cultural materials concerning everyday life in German-speaking countries.

GER 102 ELEMENTARY GERMAN II
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: GER 101 or 2-3 units of high school German, or equivalent.

A direct continuation of German 101, focusing on communication in everyday situations with further development of the four basic language skills and introduction of cultural materials.

Health and Physical Education

Various Associate Degree and Certificate programs require students to complete courses within the health and/or physical education disciplines. Please check individual programs for requirements. Students may enroll in health or physical education courses for elective credit, personal enrichment, or in pursuit of a degree in Physical Education Teacher Preparation or Sport Management. The Health and Physical Education Department also offers courses leading to New York State Public High School Coaching License.

HPE 100 SEMINAR IN HEALTH CAREER PATHWAYS
1 CREDIT

The seminar in Health Career Pathways is designed for the HSC student who wishes to explore a variety of health career opportunities and prepare for the expectations and rigors of the professional healthcare role. *(For Health Studies Certificate students only.)*

HPE 101 PERSONAL HEALTH
3 CREDITS

This course emphasizes the importance of knowledge, attitudes, and practices relating to personal health. Topics of discussion include, but are not limited to, emotional and mental health, drug and alcohol use, physical fitness, nutrition, child abuse identification, schools against violence in education training and human sexuality.

HPE 102 SAFETY & FIRST AID
3 CREDITS

This course is a study of accident causation and prevention within athletics, recreation, industry, home and community. American Red Cross Certifications are granted upon completion of required units and satisfactory skill demonstration.

HPE 124 CAREER FITNESS
1 CREDIT

Prerequisite: HPE 105, Enrolled in Wind Energy or Criminal Justice or permission from Instructor.

This course introduces students to the key health-related fitness components: cardiovascular-respiratory fitness, muscular strength, muscular endurance, body composition and flexibility. Special emphasis is given to the role these components play in preparing students to meet the fitness standards required for various careers in wind energy and turbine technology, law enforcement, firefighting, or the military. The connection between career fitness training and the ultimate goal of lifelong wellness and productivity will also be emphasized in this course. This course is structured toward students who are already planning a career in wind energy & turbine technology, law enforcement, firefighting, or the military; students interested in exploring more about those types of careers; students who are employed in those types of careers and who need to improve and/or maintain their career fitness status; and students who want to improve their overall fitness with more discipline and challenge.

HPE 125 NUTRITION FOR HEALTH & FITNESS
3 CREDITS

Prerequisite: MAT 098, ENG 093, and ENG 094

This course emphasizes the important relationship between nutrition, health promotion, and fitness. Students will investigate sound, practical nutritional and fitness recommendations that reduce stress, boost the immune system, increase energy, decrease body fat, build muscle, protect good health, enhance performance and invest in lifelong well-being. Topics of discussion include nutritional requirements and guidelines, nutritional needs at various ages and fitness levels, nutritional and exercised-base weight management, and nutritional research and application.

**HPE 146 PHILOSOPHIES, PRINCIPLES,
ORGANIZATION OF ATHLETICS IN
EDUCATION**
3 CREDITS

This course examines basic principles and philosophies of interscholastic athletics as part of physical education. State, local, and national policies and regulations of athletics will be discussed. Other topics will include legal issues, the function and organization of leagues and athletic associations in New

York State, personal standards for the coach as an educational leader, public relations, safety procedures, principles of school budgets, record keeping, purchasing, and facility usage.

**HPE 147 CARE & PREVENTION OF ATHLETIC
INJURIES**
4 CREDITS

The course will provide a comprehensive analysis of the care and prevention of athletic injuries. This highly specialized area within the Sports Medicine realm is constantly changing; ensuring the athlete's health, safety, and overall success is imperative. Therefore, emphasis will be placed on developing a strong care and prevention foundation as students delve into selected principles and topics involving sports-related anatomy, biology, kinesiology, and physiology; sports-specific strength and conditioning; sports nutrition; sports supplements, ergogenic aids and substance abuse; current and on-going sports-related health issues; recognition, evaluation, treatment, and rehabilitation of athletic injuries; and athletic bracing, taping and wrapping.

This course is approved by the New York State Education Department and satisfies the Health Science Applied to Coaching requirement for certification as a coach in New York State.

**HPE 148 THEORY & TECHNIQUES OF COACHING
SOCCER**
2 CREDITS

Theory and Techniques of Coaching Soccer explores the theories, practices and strategies involved in coaching the game of soccer. Emphasis is given to the objectives, rules, regulations, and policies of competitive athletics, as well as to individual skills, team tactics, and organization and management skills necessary to administer a high school or intercollegiate soccer program.

**HPE 149 THEORY & TECHNIQUES OF COACHING
BASKETBALL**
2 CREDITS

Theory and Techniques of Coaching Basketball explores the theories, practices, and strategies involved in coaching the game of basketball. Emphasis will be placed upon objectives, rules, regulations, and policies of competitive athletics, as well as individual skill development, team strategy, organization and management practices pertaining to high school and intercollegiate basketball programs.

HPE 201 FOUNDATIONS OF SPORT MANAGEMENT
3 CREDITS

Prerequisites: BUS 101, ENG 101

Foundations of Sports Management is designed to provide students with an overview of sports management issues, trends, and career opportunities. The course will examine marketing, financial, ethical and legal management principles and apply those principles to amateur, professional and lifestyle sport settings.

HPE 202 SPORT IN SOCIETY
3 CREDITS

Prerequisites: ENG 101, SOC 101

Sport in Society examines sport using the sociological prospective. The course will focus on current and past issues within the sociology of the sporting landscape. Students will utilize critical thinking skills, research and theories to examine the role of sport as a key social institution that influences and is influenced by the greater society.

HPE 203 LEADERSHIP FOR SPORT PROFESSIONALS

3 CREDITS

Prerequisite: ENG 101

Leadership for Sport Professionals will introduce students to theories, approaches, and styles of leadership, as well as, the role that ethics and ethical decision making play in shaping leader behavior. Students will analyze leadership practices within different sport settings. Case studies of sport leaders from multiple sport levels and structures will be used to examine best practices in sport leadership. Critical issues in sport leadership such as gender and ethnicity will be examined as well. Students will also begin to explore their own leadership thoughts and tendencies and emphasis will be placed on the promotion of personal leadership development with a focus towards successful sport leadership.

Health and Physical Education Activity Courses

The following courses provide instruction in selected activities to help each student develop and maintain fundamental skills and lasting interests in the activity. Courses include two activity hours equal to one credit hour. Students may earn up to two credits for activity courses in intercollegiate sports.

HPE 103 CROSS COUNTRY SKIING

1 CREDIT

This is an introductory level course in classic diagonal stride cross country skiing. The history, fundamental skills, equipment, and safety concerns of cross country skiing will be taught.

HPE 104 CANOEING

1 CREDIT

This is an entry level activity course designed to introduce participants to the life-time activity of canoeing. Fundamental performance skills, equipment selection, use and care, as well as safety concerns will be taught. Students will participate in a number of canoeing day trips.

HPE 105 PHYSICAL FITNESS

1 CREDIT

This is an introductory level course focusing on five key aspects of health related fitness with regard to fitness program design and implementation. Aspects of health-related fitness include flexibility, body composition, cardiovascular respiratory fitness, muscle strength and muscle endurance.

HPE 106 GOLF

1 CREDIT

This is an introductory level activity course focusing on the skills, rules, etiquette and strategies of the game of golf as a lifetime activity.

HPE 107 HIKING AND CAMPING

1 CREDIT

This an entry-level activity course designed to introduce the student to hiking and camping skills. Class meetings will focus upon brief classroom discussion and demonstrations and a series of field trips and outings.

HPE 109 VOLLEYBALL

1 CREDIT

This is an introductory level activity course focusing on knowledge and application of basic skills, rules and game strategies of the sport of volleyball.

HPE 111 RACQUETBALL

1 CREDIT

This course will emphasize the fundamental skills, rules and safety considerations necessary to become proficient at the novice level in the sport of racquetball.

HPE 113 TENNIS

1 CREDIT

This is an introductory level course in the sport of tennis. Fundamental skills as well as rules and etiquette of the game of tennis will be taught.

HPE 114 INDOOR SOCCER

1 CREDIT

This is an introductory level course designed to help the participant develop and maintain an understanding of the fundamental skills and rules for participation in the sport, and to develop a lasting interest in the sport of indoor soccer.

HPE 117 DOWNHILL SKIING

1 CREDIT

This is a beginner to intermediate level course in the sport of Alpine Skiing. Emphasis will be placed upon the development of fundamental skills, practices and basic teaching methods related to the sport. Topics of emphasis may include but are not limited to fundamental movements, basic terminology, equipment, safety rules, etiquette, and beginner to intermediate skiing techniques. A process of movement analysis will be utilized to assess body positioning, current skill level and to identify methods of refining technique and performance.

HPE 118 AEROBIC CONDITIONING

1 CREDIT

This activity course will introduce the students to theories, techniques, and practices of cardio-respiratory endurance training. Topics of exploration will include, but not be limited to theories, techniques and terminology of aerobic training, major muscle groups as they relate to training, exercise preparation, and flexibility, aerobic fitness assessment, exercise prescription, nutrition, and training injuries and conditions. Each student will be evaluated using an appropriate pre-training, training, and post-training cardio-respiratory endurance test. Additionally, each student will design, document, implement, and track an aerobic fitness plan appropriate for their fitness level and goals. When offered in the hybrid format, students are required to purchase an instructor approved heart rate monitor.

HPE 119 INTRODUCTION TO DANCE

1 CREDIT

This course will focus on an introduction of various styles of dance, to include, but not limited to, Hip Hop, Theatrical, and Salsa.

HPE 120 PILATES

1 CREDIT

This course will focus on the fundamentals and philosophy of Pilates at an introductory level.

HPE 121 SNOWBOARDING

1 CREDIT

Snowboarding is a beginner to intermediate course in the sport of snowboarding. Emphasis will be placed upon the development of fundamental skills, practices and basic teaching methods related to the sport. Topics of emphasis may include but are not limited to the fundamental movements of: rotation, flexion, extension, edge angle, pressure distribution, safety equipment and concerns. A process of movement analysis will be utilized to assess body positioning, current skill level and to identify methods of refining ride performance.

HPE 122 INTERMEDIATE PILATES

1 CREDIT

Prerequisite: HPE 120

This course will focus on the philosophy and fundamentals of Pilates method at the intermediate level.

HPE 123 CARDIO-KICKBOXING

1 CREDIT

This course provides instruction and practice in kickboxing, a martial arts fitness based program. The kickboxing movements improve aerobic endurance, flexibility, balance, muscle strength and tone. The course emphasizes proper technique and the correct form for kicks, punches and combinations. Students will learn how to practice safe techniques and build self-confidence. Instruction and practice with kickboxing bags and gloves included.

HPE 126 INTEGRAL HATHA YOGA

1 CREDIT

This Course will focus on the fundamental of Integral Hatha Yoga: the Asanas (The Poses), the Pranayama (The Breath) and Deep Relaxation Meditation at the beginner to intermediate level.

HPE 150 MEN'S SOCCER

1 CREDIT

Prerequisite: Academic eligibility per NJCAA guidelines

Intercollegiate Men's Soccer is an advanced level course focusing on individual skill development, game rules and team tactics of intercollegiate soccer.

HPE 151 WOMEN'S SOCCER

1 CREDIT

Prerequisite: Academic eligibility per NJCAA guidelines

Intercollegiate Women's Soccer is an advanced level course focusing on individual skill development, game rules and team tactics of intercollegiate soccer.

HPE 153 MEN'S BASKETBALL

1 CREDIT

Prerequisite: Academic eligibility per NJCAA guidelines

Intercollegiate Men's Basketball is an advanced level course focusing on individual skill development, game rules and team tactics of intercollegiate basketball.

HPE 154 WOMEN'S BASKETBALL

1 CREDIT

Prerequisite: Academic eligibility per NJCAA guidelines

Intercollegiate Women's Basketball is an advanced level course focusing on individual skill development, game rules and team tactics of intercollegiate basketball.

HPE 157 INTERCOLLEGIATE CROSS COUNTRY

1 CREDIT

Prerequisite: Academic eligibility per NJCAA guidelines

Intercollegiate Cross Country is designed for advanced participants in cross country running competing on the NJCAA Division III collegiate level. Students will learn and apply advanced training knowledge, techniques and skills to improve their individual and team performance in a competitive running setting.

Health Services Management

HSM 111 COMMUNITY MEDICINE AND PUBLIC HEALTH

(Offered Fall only)

3 CREDITS

This course provides an overview of health care in the United States. The American system of health services and the philosophy, history, organization, and utilization of public health programs at various levels are examined.

HSM 112 ISSUES IN LONG TERM CARE

(Offered Spring only)

3 CREDITS

The study of long-term health care and the greatest challenges facing it are studied in depth. The population needs, consumer demands, resource consumption, and financing are reviewed with an emphasis on a well-organized, efficient, client-oriented continuum of care.

HSM 211 MEDICAL PROBLEMS AND PROGRAMS

(Offered Fall only)

3 CREDITS

Various aspects of the health care industry are reviewed, including personnel and the team concept in health services. Economic and social factors affecting the U.S. health care delivery system are studied. Issues such as death, dying, loss and bereavement are examined.

HSM 212 MANAGEMENT OF HEALTH FACILITIES

(Offered Spring only)

3 CREDITS

This course provides an introduction to the basic structure of health-related facilities including nursing homes, adult care facilities, home care agencies, voluntary agencies, ambulatory centers, hospitals and independent living facilities. Management systems and responsibilities as they relate to the health care industry are reviewed.

History

HIS 101 HISTORY OF EARLY AMERICA

(Offered Fall, Spring and Summer)

3 CREDITS

Prerequisite: Completion of ENG 101S or placement in ENG 101.

Gen Ed Category: American History

This course surveys American development from early settlement through the Civil War. Tracing the origin and growth of political, economic, social and cultural institutions, special emphasis will be placed on key questions about the relevance and significance of American Colonial life, the American Revolution, Constitution making, Jeffersonian Republicanism, the War of 1812, Jacksonian Democracy, Manifest Destiny, slavery, and the Civil War.

HIS 102 HISTORY OF MODERN AMERICA

(Offered Fall, Spring and Summer)

3 CREDITS

Prerequisite: Completion of ENG 101S or placement in ENG 101.

Gen Ed Category: American History

This course surveys and examines selected problems and opportunities facing the United States in the late Nineteenth and Twentieth Centuries. Tracing the development and growth of political, economic, social and cultural institutions, special emphasis is on the significance and relevance of industrial growth, the Gilded Age, the Populist Revolt, the Progressive Reform movement, America as a World Power, World War I, the Roaring Twenties, the New Deal, World War II, The Fifties, The Dissenting Sixties, and the trials and tribulations of the Seventies and the Eighties.

HIS 121 ORIGINS OF WESTERN CIVILIZATION

(Offered Fall and Spring)

3 CREDITS

Prerequisite: Completion of ENG 101S or placement in ENG 101.

Gen Ed Category: Western Civilization

This course is an introduction to the Western tradition of historical study, with emphasis on how the beliefs and actions of past cultures continue to influence historical perspective. The course begins with the classical Greco-Roman civilizations, advances through Medieval society, and concludes with the development of a Renaissance perspective in art, commerce, politics and science. (This course can be used for social science, humanities or elective credit.)

HIS 122 WESTERN CIVILIZATION IN THE MODERN ERA
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: Completion of ENG 101S or placement in ENG 101.

Gen Ed Category: Western Civilization
This course is a survey of the actions and beliefs that have shaped Western Civilization from the Renaissance, through the ages of scientific and social revolution, including the Enlightenment and the Industrial Revolution. The course concludes with the 20th century and concepts of nationalism, globalization and progress as basic parts of our social structure. (This course can be used for social science, humanities or elective credit.)

HIS 132 HISTORY OF THE MODERN WORLD
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: Completion of ENG 101S or placement in ENG 101.

Gen Ed Category: Other World Civilizations
This course surveys the major civilized traditions during the past five centuries. Principle themes include the evolution of Western dominance, the development of the scientific and cosmopolitan world views, political revolutions East and West, the rise and fall of colonial empires, the impact of the industrial and democratic revolutions, global conflicts, and nation-building in the Third World. (This course can be used for social science, humanities or elective credit.)

HIS 203 HONORS: HISTORY OF THE CHAMPLAIN VALLEY 1609-1860
(Offered Fall only) **3 CREDITS**
Prerequisite: Student is eligible for honors coursework.

Gen Ed Category: American History
This course surveys the history of the Champlain Valley from Samuel de Champlain's 1609 expedition to the Civil War. Tracing the origin and growth of political, economic, social and cultural institutions, special emphasis will be placed on key questions about the relevance and significance of the Champlain Valley to European settlement in North America, the French and Indian War, American Colonial life, the American Revolution, the War of 1812, and the Underground Railroad.

HIS 208 HISTORY OF THE WAR IN VIETNAM
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: Completion of ENG 101S or placement in ENG 101.

This course examines the historical and political origins of the Vietnam Conflict dating back to World War II, and follows events internationally and domestically which ultimately culminated in the U.S. evacuation of Saigon in 1975. Students also study legacies involving warfare, veterans, and social change.

HIS 218 AMERICA IN THE 1960s
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: Completion of ENG 101S or placement in ENG 101.

This course is a historical examination of this turbulent and confusing decade. Special emphasis will be placed on the Kennedys, Vietnam, the Civil Rights Movement, and the Counter Culture.

HIS 250 TWENTIETH CENTURY WORLD HISTORY
(Offered Fall only) **3 CREDITS**
Prerequisite: Completion of ENG 101S or placement in ENG 101.

Gen Ed Category: Other World Civilizations
This course employs a global historical approach to the comprehension of the social, political, economic and cultural events which helped shape and define the twentieth century. Specific topics covered will include the advent of mass society, the end colonialism, nationalism, the rise of totalitarianism, two world wars, the cold war, various social and intellectual movements, scientific and technological advances and the reemergence of Asia as an increasingly relevant actor in global affairs.

Humanities

HUM 110 INTRODUCTION TO THE ARTS
(Offered upon sufficient demand) **3 CREDITS**

Gen Ed Category: The Arts
This course offers a general survey of the humanities. Art, music, literature, theater, and philosophy are studied and discussed from a historical and cultural context. Students are encouraged to think critically while evaluating the humanistic disciplines and their bearing on wider social ideals, issues, and questions.

HUM 285 INTERNATIONAL EXPERIENCE
(Offered upon sufficient demand) **1-15 CREDITS**

International Experience is designed to help students develop knowledge, skills and strategies to have a successful study abroad experience. Students will enhance their cultural observation, communication, and acculturation skills and learn basic knowledge of the language, history and culture of the country of study. This course begins in the fall or summer semester and continues beyond the end of the semester with travel and study abroad. Students will participate in classroom lectures and visits to sites that are historically and culturally significant in the country of study. The number of credits for this course will vary from 1-15 depending on the length of study abroad; 1 credit per week abroad plus one additional credit is the standard.

Human Services

HUS 101 INTRODUCTION TO HUMAN SERVICES
(Offered Fall and Spring) **3 CREDITS**

This course is an introduction to the human services profession. It examines the broad range of functions of human service workers, social workers, and professionals in other helping disciplines. Students will examine the attributes, contexts, and agency settings for entrance into different fields of practice. Specific client groups are explored and students are encouraged to begin identifying practice areas of interest. Course content focuses upon the helping process, multicultural awareness, ethical standards, and how research informs the training of effective, professional, helpers.

HUS 105 INTRODUCTION TO BASIC COUNSELING SKILLS
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: HUS 101 or SWK 101.

This course is designed as an introduction to the skills used in basic counseling roles found in the human services field. Interviewing techniques, communication skills, problem-solving techniques, and conflict resolution are explored. Working with special populations is addressed. The course includes presentations, discussions, experiential activities, and role-playing which will afford the student the opportunity to test his/her knowledge and skills in the counseling field.

HUS 108 FOUNDATIONS FOR THE CHEMICAL DEPENDENCY PROFESSIONAL
(Offered Fall) **3 CREDITS**

This course provides an introduction to the history, key concepts, and impacts of substance abuse for the individual and community. It examines the continuum of chemical dependency and the role of the professional in prevention, intervention, treatment, and recovery.

HUS 110 CRITICAL TOPICS IN CHEMICAL DEPENDENCY
(Offered Spring) **3 CREDITS**
Prerequisites: HUS 101, HUS 105 and HUS 108.

This course serves as an introduction to the field of chemical dependency counseling. It explores each drug classification, an historical overview of cultural attitudes, the impact of abuse on individuals, families, and communities, treatment modalities, and international drug policies.

HUS 160 HUMAN SERVICES ORGANIZATIONS
(Offered Spring) **3 CREDITS**
Prerequisites: HUS 101, HUS 105.

This course examines the organizational structure and delivery systems of various social service programs. Nationally prominent and locally managed program will be analyzed in relation to internal structure, functions of management, defining mission statements, the identification of goals and objectives, competent service provision, the referral process, advocacy, diversity issues, flexibility, and worker burnout. The challenge of client empowerment via agency programming and influences of social policy will be addressed.

HUS 175 ETHICS OF CHEMICAL DEPENDENCY COUNSELING
(Offered Fall) **3 CREDITS**
Prerequisites: HUS 101, HUS 105 and HUS 108.

This course is designed as an introduction to the theories and ethical practices used in the chemical dependency counseling field. Historical development of each theory and current practical application will be stressed. Ethical situations that arise in counseling will be discussed and students' understanding of the need for ethical practice will be explored.

HUS 200 CASE MANAGEMENT AND CRISIS INTERVENTION
(Offered Spring) **3 CREDITS**
Prerequisites: HUS 101 and HUS 105.

This course is designed to offer specialized, applied knowledge in the community services field to develop the skills and abilities in the case management process. The course will examine each step from intake through termination. Actual agency forms will give the student the opportunity to compile and manage cases and prepare client files. Students will also explore the role of the Human Services professional by examining different theories and strategies for crisis intervention.

HUS 206 GROUP SKILLS FOR HUMAN SERVICES
(Offered Fall) **3 CREDITS**
Prerequisites: HUS 101, HUS 105.

This course identifies and introduces the crucial skills that are necessary for competence in the area of understanding group systems, group models from biological, psychological, and social viewpoints, and conducting groups. Areas of interest include identifying the different types and purposes of groups, working with different types of groups, the treatment process, and responding to different cultural differences that may affect group process. Specified populations will be addressed.

HUS 210 IDENTIFICATION, DIAGNOSIS, & TREATMENT PLANNING
(Offered Fall) **3 CREDITS**
Prerequisites: HUS 101, HUS 105 and HUS 108.

This course is designed to instruct the student in the process developing rapport with a client, client identification, and the diagnosis and the treatment planning of substance use disorders. It also explores motivational techniques and the completion of treatment documentation.

HUS 283 INTERNSHIP & SEMINAR
(Offered Spring and Summer) **6 CREDITS**
Prerequisites: HUS 101, HUS 105, HUS 160, HUS 200 and HUS 206

The objective of this course is to provide students with the opportunity to discuss, examine, and evaluate their internship experiences and observations. Students will be encouraged to integrate and apply knowledge learned in earlier courses, as well as to develop an analytical perspective appropriate for a student "participant observer." This practicum seeks to support students as they work their way through the maze of the field setting, by providing a forum for sharing questions and insights. A total of 160 hours of fieldwork experience is needed to complete this course.

HUS 284 INTERNSHIP & SEMINAR FOR CASAC
(Offered Spring and Summer) **6 CREDITS**
Prerequisites: HUS 101, HUS 105, HUS 108, HUS 110, HUS 175, HUS 200, HUS 206, HUS 210.

The objective of the Field Practicum is to provide students with the opportunity to discuss, examine, and evaluate their internship experiences and observations. Students will be encouraged to integrate and apply knowledge learned in earlier courses, as well as to develop an analytical perspective appropriate for a student "participant observer." This practicum seeks to support students as they work their way through the maze of the field setting, by providing a forum for sharing questions and insights. A total of 250 hours of fieldwork experience is needed to complete this course.

Industrial Commercial Electrician

ICE 101 RESIDENTIAL ELECTRICAL AND WIRING
(Offered upon sufficient demand) **6 CREDITS**

This course mirrors the Electrical Training Alliance 1st and 2nd year Inside Wiremen core curriculum. Topics include the National Electric Code, electrical construction methods and electrical construction materials.

ICE 102 ELECTRICAL BLUEPRINT READING
(Offered upon sufficient demand) **2 CREDITS**

This course prepares students to read electrical blueprints and technical schematics. It mirrors the Level I and Level II Blueprint training specified for 1st and 2nd year Inside Wireman by the Electrical Training Alliance.

ICE 201 COMMERCIAL ELECTRICAL AND WIRING
(Offered upon sufficient demand) **6 CREDITS**
Prerequisites: ICE 101 and ICE 102

This course mirrors portions of the Electrical Training Alliance

3rd, 4th, and 5th year Inside Wiremen core curriculum. Topics include the National Electric Code, lightening protection systems, and electrical construction.

ICE 202 ELECTRICAL PROJECT ESTIMATION
(Offered upon sufficient demand) **2 CREDITS**
Corequisite: ICE 102

Students in this course learn how to prepare estimates for electrical work in both residential and commercial settings.

ICE 203 ALARMS AND SPECIAL SYSTEMS
(Offered upon sufficient demand) **3 CREDITS**
Prerequisite: ICE 201

This course mirrors the Electrical Training Alliance 3rd year Fire Alarm 2 course. Topics include codes and standards, proper inspection, maintenance, and testing techniques, and advanced devices and notification appliances associated with fire alarm systems. The course also focuses on security systems, telephone monitoring systems, and structured cabling.

Library Research

LIB 101 LIBRARY RESEARCH SKILLS
(Offered Fall, Winter, Spring and Summer) **1 CREDIT**

Focuses on the use and retrieval of information within the Clinton Community College library and other information networks. Students will gain an understanding of the structure of information, the process of information retrieval and critical evaluation of sources. Emphasis will be on the development of lifelong information skills. This course fulfills the SUNY General Education requirement for the Information Management Competency.

Mass Media

MSM 118 MASS MEDIA
(Offered Spring only) **3 CREDITS**
Prerequisite: ENG 101 or permission of instructor.

Gen Ed Category: Humanities

Students will examine the processes and functions of mass communication and their effects on mass audiences. Each of the major mass media (newspapers, magazines, books, radio, television, movies, and electronic media) is defined and analyzed. Media issues explored include First Amendment freedoms, control and censorship, mass media's relationship to government, media ethics, and global mass media. Counts as Social Science or Humanities credit.

MSM 239 ART OF THE FILM
(Offered Fall only) **3 CREDITS**
Prerequisite: ENG 102 or permission of instructor.

Gen Ed Category: The Arts

This is an introductory course intended to help students acquire both a greater understanding and a deeper appreciation of the films that they attend by studying film as a distinct art form. The course focuses primarily on filmmaking techniques (e.g. photography, mise en scene, movement, editing, sound, etc.), and also the narrative elements of film (acting, drama, story, writing, and so on). There may also be secondary emphasis on film theory and history, as well as the study of certain film genres. The course will include screenings of full-length films that illustrate different cinematic techniques, or that represent a certain era of filmmaking, or the work of important directors. Students will develop skills in film analysis and criticism in written responses to films that are viewed.

Mathematics

MAT 090 PREALGEBRA SUPPLEMENT
(Offered Fall and Spring) **0 CREDITS**
Prerequisite: placement test results
Corequisite: corresponding MAT098 section

Students who place into MAT090 are required to enroll in both MAT098 and this supplemental course during the same semester. The course is designed to assist students in achieving success in MAT 098 by offering them supplemental support and instruction. Students must earn a CN or better to pass the course.

MAT 098 PREALGEBRA
(Offered Fall, Spring and Summer) **0 CREDITS**
Prerequisite: Placement test results

This course reviews fundamental mathematical skills in preparation for introductory college algebra. Course topics include the study of real numbers including integers, fractions and decimals; algebraic expressions; linear equations and an introduction to graphing on the coordinate plane. Near the end of the course, students will complete a comprehensive, departmental final exam to assess their preparedness to move on to MAT 100 Introductory Algebra. Students must earn a CN or better to pass the course.

MAT 100 INTRODUCTORY ALGEBRA
(Offered Fall, Spring and Summer) **4 CREDITS**
Prerequisite: MAT 098, equivalent or placement

This course covers basic algebraic skills essential to the study of mathematics. Course topics include linear expressions, equations, and inequalities; systems of linear equations; quadratic expressions and equations; polynomial and rational expressions; radical expressions and equations; and graphing on the coordinate plane. Applications to various fields of study will be explored. Near the end of the course, students will complete a comprehensive, departmental final exam to assess their preparedness to move on to a college-level math course. This course counts as free-elective credit only. Students must earn a C-or better to take MAT/04 College Algebra with Trigonometry I or MAT105 Technical Mathematics I.

MAT 100Q QUANTITATIVE LITERACY I
(Offered Fall and Spring) **4 CREDITS**
Prerequisite: MAT 098, equivalent or placement.
Corequisite: RDG 095, if required by placement.

This course focuses on quantitative reasoning and engages students in relevant and useful mathematics that they can apply to their daily lives, such as: numeracy, proportional reasoning, algebraic reasoning and an understanding of functions. Students will develop conceptual and procedural tools that support the use of mathematical concepts in a variety of contexts. Near the end of the course, students will complete a comprehensive, departmental final exam. This is the first of two courses that follow the Quantway curriculum. The Quantway sequence of courses is intended for non-STEM (math, science, computer science and technology) students and non-business students. After successful completion of this course, students can take MAT101Q – Quantitative Literacy II or MAT 103 – Finite Mathematics.

MAT 101Q QUANTITATIVE LITERACY II
(Offered Fall and Spring) **3 CREDITS**
Prerequisite: MAT 100Q or MAT 100, equivalent or placement.

Gen Ed Category: Mathematics

In this course, mathematical and statistical reasoning are explored through topics in everyday life. Students will integrate

quantitative literacy with mathematical concepts such as percents, probability, mathematical modeling, and statistical thinking. Concepts are investigated with hands-on activities using medical, environmental, and financial examples. Near the end of the course, students will complete a comprehensive, departmental final exam. This is the second of two courses that follow the Quantway curriculum. The Quantway sequence of courses is intended for non-STEM (math, science, computer science and technology) students and non-business students. After successful completion of this course, students can take MAT161 – Elementary Statistics. This course fulfills the SUNY General Education requirement for the Mathematics Knowledge and Skill Area.

MAT 103 FINITE MATHEMATICS

(Offered Fall, Spring and Summer) **3 CREDITS**
Prerequisite: MAT 100, equivalent or placement
Corequisite: ENG 101S and RDG 095, if required by placement

Gen Ed Category: Mathematics

This course emphasizes mathematical skills and techniques applicable to business, life sciences and social sciences. Course topics include linear functions, quadratic functions, mathematics of finance, systems of equations, matrices, linear programming, set theory, basic probability and combinatorics. The use of a graphing calculator is required for this course to further the exploration of these topics and their applications. Near the end of the course, students will complete a comprehensive, departmental final exam.

MAT 104 COLLEGE ALGEBRA WITH TRIGONOMETRY I

(Offered Fall and Spring) **4 CREDITS**
Prerequisite: C- or better in MAT 100, equivalent or placement
Corequisite: ENG 101S and RDG 095, if required by placement

Gen Ed Category: Mathematics

This course is the first course of a two-semester sequence designed to prepare students for calculus. Course topics include an introduction to relations and functions; the study of linear, quadratic, polynomial, rational, exponential, and logarithmic expressions and functions; and right triangle trigonometry. Algebraic techniques of simplification will be emphasized. The use of the graphing calculator is required to further the exploration of these topics and their applications. Near the end of the course, students will complete a comprehensive, departmental final exam.

MAT 105 TECHNICAL MATHEMATICS I

(Offered Fall and Spring) **4 CREDITS**
Prerequisite: C- or better in MAT 100, equivalent or placement
Corequisite: ENG 101S and RDG 095, if required by placement

Gen Ed Category: Mathematics

This is the first course in a two-semester sequence of intermediate algebra and trigonometry with technical applications. Course topics include operations in the real number system, units of measurement and approximate numbers, functions and graphs, first-degree equations, lines and linear functions, systems of linear equations, right triangle trigonometry, geometry (perimeters, areas, volumes of common figures), rules of exponents, polynomial operations, factoring, operations on rational expressions, quadratic equations, and binary and hexadecimal notation. The use of a graphing calculator is required for this course to further the exploration of these topics and their applications. Near the end of the

course, students will complete a comprehensive, departmental final exam to assess their preparedness to move on to MAT 205 Technical Mathematics II.

MAT 161 ELEMENTARY STATISTICS

(Offered Fall, Spring and Summer) **3 CREDITS**
Prerequisite: MAT 101 or higher or placement

Gen Ed Category: Mathematics

This course is a study of basic statistical techniques and some related probability theory. Course topics include data collection and presentation, measures of central tendency and dispersion, graphing data sets, linear correlation and regression, sampling distributions, estimation, and hypothesis testing. Distribution studies include the binomial, normal, and student's t . At least one student project is required for this course. The use of a graphing calculator is required for this course to further the exploration of these topics and their applications. Near the end of the course, students will complete a comprehensive, departmental final exam.

MAT 204 COLLEGE ALGEBRA WITH TRIGONOMETRY II

(Offered Fall only) **4 CREDITS**
Prerequisite: MAT 104, equivalent or placement

Gen Ed Category: Mathematics

This course is the second of a two-semester sequence designed to prepare students for calculus. Course topics include polynomial, rational, and trigonometric functions; trigonometric identities and equations; oblique triangles; polar coordinates; conic sections. If time permits, systems of equations and matrices will be covered. The use of the graphing calculator is required for this course to further the exploration of these topics and their applications. Near the end of the course, students will complete a comprehensive, departmental final exam.

MAT 205 TECHNICAL MATHEMATICS II

(Offered Fall and Spring) **4 CREDITS**
Prerequisite: MAT 105, equivalent or placement

Gen Ed Category: Mathematics

This is the second course in a two-semester sequence of intermediate algebra and trigonometry with technical applications. Course topics include operations on exponents and radicals, exponential and logarithmic functions and equations, radians, trigonometric functions of any angle, sinusoidal functions and graphing, oblique triangles, vectors, complex numbers and their applications, inequalities, ratio and proportion, variation, and (optional) an introduction to statistics. If time permits, a brief intuitive approach to calculus will be covered. The use of a graphing calculator is required for this course to further the exploration of these topics and their applications. Near the end of the course, students will complete a comprehensive, departmental final exam.

MAT 215 CALCULUS FOR BUSINESS STUDENTS

(Offered upon sufficient demand) **4 CREDITS**
Prerequisite: MAT 104, equivalent or placement

Gen Ed Category: Mathematics

This course provides skills and techniques necessary to solve mathematical problems of modern businesses. Course topics include a review of algebra and basic set theory; mathematical modeling; functions and their graphs; an introduction to limits; the methods of finding derivatives; the interpretation and applications of derivations in economic terms, and finding antiderivatives with their applications in the business world. The use of a graphing calculator is required for this course to further the exploration of these topics and their applications. Near the end of the course, students will complete a comprehensive, departmental final exam.

MAT 224 CALCULUS I

(Offered Spring only)

4 CREDITS**Prerequisite:** MAT 204, MAT 205, placement or equivalent*Gen Ed Category: Mathematics*

This course is an introduction to the basic concepts of differential and integral calculus. Course topics include limits and continuity; differentiation and its applications including curve sketching; indefinite and definite integrals; the Fundamental Theorem of Calculus; derivatives and integrals of the trigonometric functions. The use of a graphing calculator is required for this course to further the exploration of these topics and their applications. Near the end of the course, students will complete a comprehensive, departmental final exam.

MAT 225 CALCULUS II

(Offered upon sufficient demand)

4 CREDITS**Prerequisite:** MAT 224*Gen Ed Category: Mathematics*

This course is a continuation of MAT 224. Course topics include applications of integration, transcendental functions, techniques of integration, polar coordinates, infinite series including the Taylor Series and some differential equations. The use of a graphing calculator is required for this course to further the exploration of these topics and their applications. Near the end of the course, students will complete a comprehensive, departmental final exam.

MAT 226 CALCULUS III

(Offered upon sufficient demand)

4 CREDITS**Prerequisite:** MAT 225

This course is the concluding course in the three-semester sequence. Course topics include analytic geometry of three dimensions, determinants and linear equations, vector analysis, partial differentiation, cylindrical and spherical coordinates, and applications. The use of a graphing calculator is required for this course to further the exploration of these topics and their applications. Near the end of the course, students will complete a comprehensive, departmental final exam.

MAT 232 INTRODUCTION TO LOGIC

(Offered upon sufficient demand)

3 CREDITS**Prerequisite:** MAT 100 or equivalent

This course is an introduction to the laws, principles, and methods of logic and problem-solving. Course topics include forms of deductive and inductive argument; fallacious reasoning and an analysis of problem-solving methods emphasizing mathematical techniques and applications.

Mechanical Technology

MEC 100 INTRODUCTION TO ENGINEERING TECHNOLOGY

(Offered Fall only)

3 CREDITS

Introduction to Engineering Technology is designed to provide students with the foundation necessary to succeed in the Mechanical Engineering Technology program and in industry. The course will introduce students to important concepts in industry to include safety, maintenance, and quality. Students will learn how to create the type of technical reports industry desires through individual and group design projects. Key concepts such as critical thinking, problem solving, and team building will be exercised through classroom activities. Students obtain resume writing and interview skills. Tours of local manufacturing facilities will provide students the

opportunity to experience the manufacturing environment allowing for experiences they can relate to in future classes.

MEC 101 TECHNICAL DRAWING/CAD

(Offered Spring only)

3 CREDITS**Prerequisites:** Completion of MAT 100 or higher or placement above MAT 100

This course teaches the fundamentals of engineering drawing to acquaint students with traditional board drawing skills and computer aided drafting (CAD). Upon successful completion, students should be able to: properly use CAD drafting tools to create a title block; draw views of objects using orthogonal techniques; illustrate interior views using sections; dimension a drawing; use CAD to prepare to construct, layout, dimension, and annotate two/three dimensional drawings.

MEC 102 BLUEPRINT READING & TECHNICAL SCHEMATICS

(Offered Fall and Spring)

1 CREDIT**Prerequisites:** MEC 100 or WTT 101

This course is designed to provide students with a background in reading blueprints and technical schematics. Students will learn the different components, and terminology involved in various types of drawings and diagrams they may come across in industry. The class encompasses machining, construction, and welding drawings, as well as how to read electrical, hydraulic, pneumatic, piping, instrumentation, and refrigeration. Students will learn the importance of understanding how to read drawings and diagrams as well as how to troubleshoot a system.

MEC 201 SOLID MODELING & ANIMATION WITH AUTODESK INVENTOR/3D STUDIO MAX

(Offered Spring only)

3 CREDITS**Prerequisite:** MEC 101

The first half of the course teaches fundamentals of engineering drawing, modeling, and configurations utilizing Autodesk Inventor. Students will learn parametric modeling techniques, how to organize the model tree and advanced 3D modeling techniques. The second half of the course teaches students how to bring their creations to life through simulation and animation utilizing Autodesk 3D Studio. The course is instructed utilizing a hands on approach allowing the students to immediately apply concepts learned through tutorials and classroom instruction.

MEC 202 ADVANCED SOLID MODELING WITH SOLIDWORKS

(Offered Spring only)

3 CREDITS**Prerequisite:** MEC 101

This course teaches the fundamentals of engineering drawing, modeling and configurations utilizing SolidWorks. Students will learn the concepts of reverse engineering, top-down design, surface modeling, animation, and rendering. The course is instructed utilizing a hands-on approach allowing the students to immediately apply concepts learned through tutorials and classroom instruction.

MEC 203 INTRODUCTION TO QUALITY CONTROL/QUALITY ASSURANCE

(Offered Fall only)

3 CREDITS**Prerequisite:** MEC 100 and MAT 100 or equivalent

This course provides an overview of the field of Quality Control and Quality Assurance practices in manufacturing. Students will learn International Quality Standards (ISO 9000, ASTM, Six Sigma, etc.) and how quality improvement methodologies can be used to solve manufacturing problems. Topics include statistical concepts, data collection techniques, problem solving tools and introduction to the scientific method of problem

solving.

MEC 204 MANUFACTURING PROCESSES

(Offered Fall only)

3 CREDITS

Prerequisite: MEC 100

Manufacturing Processes is intended to serve as a source for evaluating and using manufacturing processes. The course provides a comprehensive survey of manufacturing processes for use in Industrial Technology. This includes casting, forging, extrusion, drawing, stamping, injection molding, blow molding, machining, welding, rapid prototyping, etc. To achieve this specific scope, the focus will be placed on the major material families: metallic, ceramic, polymeric (plastic and wood), and composite. Classroom topics will be reinforced in the lab with hands-on materials properties, casting, plastic forming, machining, and welding labs. Students will also experience these processes first-hand through field trip(s) to area manufacturing companies.

MEC 205 GEOMETRIC DIMENSIONING AND TOLERANCING

(Offered Spring only)

2 CREDITS

Prerequisites: MEC 101 and MAT 105

This course teaches students about Geometric Dimensioning and Tolerancing (GD&T) practices, through the use of the ASME Y14.5-2009 standard. Students will learn about symbols from existing drawings, translate that knowledge into calculating the tolerances for the proper size and location of features. The course starts with basic concepts building up to advanced applications for GD&T.

MEC 206 PRINCIPLES OF FLUID POWER SYSTEMS

(Offered Fall and Spring)

3 CREDITS

Prerequisite: MEC 100 and MAT 100 or equivalent

Principles of Fluid Power Systems is a course designed to acquaint students with a broad overview of hydraulic and pneumatic concepts. The course will cover fundamental laws and principles of fluid power (both compressible and non-compressible fluids) and operation of hydraulic and pneumatic components including valves, pumps, cylinders and motors. The course includes the study of circuits and troubleshooting and repair.

MEC 207 INDUSTRIAL MAINTENANCE

(Offered Fall only)

3 CREDITS

Prerequisite: MEC 100

This course is designed to acquaint students with a broad overview of preventive maintenance, predictive maintenance, non-destructive testing, and computerized maintenance. The course will cover the economic benefits of properly maintaining manufacturing equipment to minimize down time and capital cost of premature replacement by teaching students the importance of preventive maintenance programs and the techniques involved in Total Productive Maintenance (TPM). Students will learn how to create inspection and preventative maintenance plans based on machines in the lab and processes in industry.

MEC 208 MAINTENANCE & SYSTEMS RELIABILITY

(Offered Spring only)

1 CREDIT

Prerequisite: MEC 207

This course is designed to provide students with an understanding of troubleshooting issues in industry. The course will introduce students to important concepts related to troubleshooting hydraulic, pneumatic, and electrical systems as well as programmable logic controllers. Students will learn

various methods of troubleshooting through hands-on labs similar to the manufacturing environment. Students will have the opportunity to troubleshoot on hydraulic, pneumatic, motor control, lubrication, process control, and programmable logic controller trainers.

MEC 209 INDUSTRIAL HEALTH AND SAFETY

(Offered Fall and Spring)

2 CREDITS

This course covers the importance of worker safety in the workplace and explores components of effective safety programs. Students will learn about OSHA standards and what effect it has on industry. The class also teaches students about various lifting, fire, and health hazards and how to operate safely in the work environment.

MEC 212 COMPUTER AIDED MANUFACTURING (CAM)

(Offered Fall only)

3 CREDITS

Prerequisites: MEC 101

This course is intended to support the practical activity of preparing and proving Computer Numerical Control (CNC) part programs for turning, milling, and drilling, in addition to programming robots. Students will learn the importance that computer numerically controlled machines have on modern day manufacturing facilities. They will obtain hands-on experience working with and programming both machining equipment and robots to perform various tasks. The course provides students the basics of writing coding, operating CNC machinery, and how to use MasterCam. All three of these skills will come together through various lab and project assignments.

MEC 215 WORKFORCE LEADERSHIP

(Offered Spring only)

3 CREDITS

Prerequisite: MEC 100

This course covers the roles and responsibilities of a supervisor or team leader and examines the skills required to effectively lead people and manage their efforts. Topics include effective communications, leadership, problem solving, decision making, continuous quality improvement, change, stress management, diversity issues, and training. Both union and non-union environments are examined.

MEC 217 INSTRUMENTATION

(Offered Spring only)

3 CREDITS

Prerequisites: Placement into MAT 100 or higher

This is an introductory course in industrial instrumentation and controls. Students will learn the basics of a variety of instrumentation used for process automation, control valves, digital communications, safety systems, process control, etc. Theory will be explained from the text and tested with experiments using actual equipment typically used in industry.

MEC 222 PROGRAMMABLE LOGIC CONTROLLERS

(Offered Spring only)

3 CREDITS

Prerequisite: ETE 202

Programmable Logic Controller topics course is intended to serve as a source for evaluating and using PLC's. The course provides a comprehensive overview of PLC's for use in Industrial Technology. Students will be introduced to the equipment and learn how it aids industry. Students will learn how to program and troubleshoot starting with basic systems and building up to more advanced systems.

MEC 228 ROBOTICS & AUTOMATED CONTROLS

(Offered Fall only)

3 CREDITS

Prerequisite: MEC 222

This course provides hands-on experience in robotics, controls, and automation. Students will build on knowledge gained in the computer aided manufacturing and programmable logic

controllers courses. Utilizing industrial equipment students will learn and understand how to program, operate, and troubleshoot FANUC robots. Students will also program and operate with robots and other automated systems together to gain an understanding of their integration. This will build and further enhance their knowledge of PLC's and how to control systems on a higher level. The course wraps up with a systems approach to troubleshooting robotics and automated controls.

MEC 232 MECHATRONICS SYSTEMS & TROUBLESHOOTING
(Offered Spring only) **3 CREDITS**
Prerequisite: MEC 228

This course provides hands-on experience in Mechatronics. Mechatronics systems are a combination of mechanical, electrical, computer, and automation controls. Industrial systems are now all integrated, therefore a successful technician needs to be competent in all systems areas. The course combines the skills developed in fluid power, mechanical systems, maintenance systems and reliability, instrumentation, industrial electricity, programmable logic controllers, and robotics and automation. Mechatronics Systems and Troubleshooting will take the building blocks from those courses and advance students' skills through lab based activities on industrial equipment in preparation to be a skilled technician in the field.

Meteorology

MET 101 METEOROLOGY
(Offered Spring only) **4 CREDITS**
Prerequisite: Placement into ENG 101, , college level reading or completion of ENG 101S and RDG 095
Corequisite: MAT 100 or equivalent

Gen Ed Category: Natural Sciences
Meteorology is a course designed for the student who would like to learn more about weather phenomenon. This course explores atmospheric phenomena such as the nature and variability of the wind, temperature, cloud and precipitation as well as the Earth's energy budgets. Emphasis is placed upon the various terminology and tools that meteorologists employ to observe, study and predict storm systems, the development and movement of fronts, as well as thunderstorms and tornadoes. Current topics such as the El Nino, climate modification and air pollution will also be addressed. There are three hours of lecture and one two-hour laboratory per week.

Music

MUS 101 MUSIC APPRECIATION
(Offered upon sufficient demand) **3 CREDITS**

Gen Ed Category: The Arts
This course presents a basis of intelligent music listening with a series of listening experiences. Knowledge of music technicalities, and information relating to the historical/cultural aspects of music, develops sensitivity to the art. A wide variety of music from ancient through contemporary styles, including representative masterpieces which form an important part of our musical tradition are explored.

MUS 110 COLLEGE CHORALE
(Offered Fall and Spring) **1 CREDIT**
This course is designed to give the student practical experience in singing and music reading as well as

performance. It is a course that allows participating students an alternative experience in the performing arts. A student may enroll in this course twice for a total of two credits.

MUS 115 BROADWAY MUSICAL HISTORY
(Offered upon sufficient demand) **3 CREDITS**

Gen Ed Category: The Arts
This course traces the development of the American musical theatre from its late 19th Century roots to the present, viewing the musical as entertainment, art form, and commercial enterprise. The dramatic literature, music, personalities, and traditions of musical theatre are explored, along with the effect of social, political, and economic influences. This is a critical appreciation course, not a production course.

Nursing & Allied Health

EMT 110 EMERGENCY MEDICAL TECHNICIAN FUNDAMENTALS
(Offered Fall and Spring) **6 CREDITS**

This course is designed for students training to become an Emergency Medical Technician (EMT) and prepares the EMT student to provide pre-hospital assessment and care for patients of all ages with a variety of medical conditions and traumatic injuries. Areas of study include an introduction to emergency medical services systems, roles and responsibilities of EMTs, anatomy and physiology, medical emergencies, trauma, special consideration for working in the pre-hospital setting, and providing patient transportation. Successful completion of this course leads to eligibility to take New York State EMT Certification Exams.

NUR 101 INTRODUCTION TO NURSING
(Offered Fall or Spring) **1 CREDIT**

This course provides information on the profession and practice of nursing. Past, current and future trends in health care are discussed. An overview of therapeutic communication, stress management, critical thinking, problem solving, data collection and infection control are presented. Basic math and algebra skills are reviewed.

NUR 102 DOSAGE CALCULATIONS
(Offered Fall only) **1 CREDIT**
Prerequisite: MAT 100 or equivalent

This course is designed to help the student who feels uncomfortable with mathematics and its application to computation with dosage problems. Based on the comprehension of basic mathematic skills, students will become proficient in interpreting medication orders, converting between apothecary, metric, and household systems, and determining the safety of prescribed dosages for clients of all ages.

NUR 103 FUNDAMENTALS OF NURSING
(Offered Fall only) **7 CREDITS**
Prerequisite: acceptance into the Nursing program
Corequisite: ENG 101, PSY 101, BIO 228

An overview of the relationship among the concepts of person, health, and nursing. The client's needs for a safe, effective environment, physiological integrity, and psycho-social integrity are explored. The nursing process is introduced as the problem solving technique. In addition, the student acquires the knowledge and skills essential to meet the basic needs of individuals exhibiting predictable health care needs. Clinical laboratory experience is gained in the college laboratory, the local hospital and a nursing home (52.5 lecture, 37.5 college lab, 102 clinical hours).

NUR 104 MEDICAL/SURGICAL NURSING I

(Offered Spring only)

5 CREDITS

Prerequisite: "C" or better in NUR 103, ENG 101, PSY 101, and BIO 228;

Corequisite: NUR 105, PSY 230 and BIO 229

A family-centered study of physiological and psycho-social needs of all age groups with predictable health care needs. A beginning relationship among the concepts of person, health, and nursing is established. The student uses critical thinking in the application of the nursing process in caring for clients with predictable health problems related to respiration, digestion, mobilization, diabetes, and dermatology. Learning experiences will include observation in the Operating Room and Recovery Room, as well as client care experiences in med surg units, sub-acute rehab unit and Community Agencies. (30 hours lecture; 30 hours lab; and 93.75 hours clinical)

NUR 105 NURSING CARE OF THE CHILD-BEARING FAMILY

(Offered Spring only)

4 CREDITS

Prerequisite: "C" or better in NUR 103, ENG 101, PSY 101, and BIO 228;

Corequisite: NUR 104, PSY 230 and BIO 229

This course introduces relationships among the concepts of person, health and nursing in the child-bearing family. The student uses the nursing process to meet client health care needs during the child-bearing cycle. Trends and issues in reproductive health are discussed within the context of past, present, and future advances in technology. The course includes two hours per week (30 hrs.) of class lecture and 90 hrs. of clinical experiences at CVPH Medical Center on the Maternal/Newborn Unit and Pediatric Unit.

NUR 106 MEDICAL TERMINOLOGY

(Offered Fall or Spring)

1 CREDIT

A comprehensive study of medical terminology involving spelling, pronunciation, and definitions. Included is the basic structure of medical words: prefixes, suffixes, combining forms, and plurals. Emphasis is on building a professional vocabulary helpful for employment in the medical field.

NUR 201 MEDICAL/SURGICAL NURSING II

(Offered Fall only)

5 CREDITS

Prerequisite: "C" or better in NUR 104, NUR 105, BIO 228, BIO 229, and PSY 230

Corequisite: SOC 101 and BIO 204

The study of clients of all ages with health care problems that seriously disturb or threaten life status. The inter-relationship among the concepts of person, health, and nursing is developed. The student uses the nursing process in caring for clients with health care needs related to cancer, the cardiovascular system and endocrine system. Clinical laboratory experience occurs on Medical-Surgical, Intensive Care Unit, Fitzpatrick Cancer Center, Cardiac Catheterization Unit of the local hospital and Hospice. (30 lecture, 15 Skills Lecture, and 120 clinical hours).

NUR 202 MENTAL HEALTH NURSING

(Offered Fall only)

4 CREDITS

Prerequisite: "C" or better in NUR 104, NUR 105, BIO 228/229, PSY 230

Corequisite: SOC 101 and BIO 204

The focus is the individual's psycho-social adaptation to life events. The interrelationship among the concepts of person, health, and nursing is developed. The student uses the nursing process to meet health care needs of clients experiencing mental health problems that threaten or disrupt life status. Learning experiences include clinical assignments in a hospital

setting, field experiences and interdisciplinary conferences. (30 hours lecture; 10 hours seminar; and 80 hours lab).

NUR 203 MEDICAL/SURGICAL NURSING III

(Offered Spring only)

10 CREDITS

Prerequisites: "C" or better in NUR 201, NUR 202, SOC 101 and BIO 204

The focus is initially on the child and adult client with health care problems that seriously disturb or threaten life status. The inter-relationship among the concepts of person, health, and nursing are fully developed. The student uses the nursing process in caring for adult clients with unstable health care needs related to thermal injury, hepatic, urinary, and sensorineural disorders. The focus progresses from individuals to groups of clients within the hospital. The role of the nurse manager is presented encompassing effective communications, human relations, time management, and cost containment. Contemporary issues, legal and ethical issues, and professional responsibilities are explored. Learning experiences occur on Medical-Surgical Units, Critical Care Units, and Kidney Dialysis Unit, IV Therapy, Nursing Home settings and Home Health. (75 lecture and 225 clinical hours).

NUR 204 PHARMACOLOGY FOR NURSES

(Offered Spring only)

3 CREDITS

Prerequisites: "C" or better in NUR 201, NUR 202, SOC 101 and BIO 204

This course presents basic pharmacological principles. All major drug families, relevant physiology and pathophysiology are reviewed. Drug actions and interactions are explored and the major drug classifications are reviewed using a system by system approach. The nursing process is integrated as it relates to the drug therapy for each client. The course will enhance the student's ability to care for and educate patients receiving medications.

NUR 207 PHLEBOTOMY

(Offered Fall or Spring)

2 CREDITS

The course emphasizes the theory and practical instruction involved in a structured phlebotomy program to include simulated and experiential exercises. The content areas will be health care delivery systems, basic anatomy and physiology, specimen collection, infection control, professionalism, and laboratory testing.

Philosophy

PHI 101 INTRODUCTION TO PHILOSOPHY

(Offered upon sufficient demand)

3 CREDITS

Gen Ed Category: Humanities

This introductory course considers the nature of knowledge (epistemology) and value (axiology). In the first half of the course students investigate the work of philosophers who have sought to understand the origin and certitude of knowledge. These philosophers include rationalists, empiricists, and alternative thinkers such as Berkeley and Kant. In the second half of the course students confront the complex questions of moral philosophy, which involves disciplined reflection on human freedom and responsibility.

Physics

PHY 100 CONCEPTUAL PHYSICS

(Offered upon sufficient demand)

4 CREDITS

Prerequisite: MAT 100 or equivalent

Gen Ed Category: Natural Sciences

Conceptual physics is a laboratory course that emphasizes the concepts of physics while de-emphasizing complex mathematical calculations. Topics include Newtonian mechanics, heat and temperature, sound and topics from modern physics. There are three hours of lecture and one two-hour laboratory per week. Students who have received credit for PHY 111 or PHY 112 cannot subsequently receive credit for PHY 100. In the case that a student completes PHY 100 prior to completing PHY 111 or PHY 112, then PHY 100 will count as free elective credit only.

PHY 111 GENERAL PHYSICS I
 (Offered Fall only) **4 CREDITS**
Prerequisite: MAT 104, MAT 105 or equivalent
Corequisite: ENG 101, college level reading or completion of ENG 101S and RDG 095

Gen Ed Category: Natural Sciences

This is the first course of a two-semester sequence which covers: mechanics, which includes the study of linear, circular and rotational motion and how Newton's laws, and the concepts of energy and momentum can be applied, thermodynamics including temperature, heat transfer, and changes in state, and analysis of the sinusoidal nature of simple harmonic motion. There are three hours of lecture and one two-hour laboratory per week. Students who have received credit for PHY 111 or PHY 112 cannot subsequently receive credit for PHY 100. In the case that a student completes PHY 100 prior to completing PHY 111 or PHY 112, then PHY 100 will count as free elective credit only.

PHY 112 GENERAL PHYSICS II
 (Offered Spring only) **4 CREDITS**
Prerequisite: PHY 111
Corequisite: MAT 204, MAT 205 or equivalent

Gen Ed Category: Natural Sciences

This is a continuation of General Physics I. The following topics include: wave phenomena and sound, electricity and magnetism, optics, and topics from modern physics including quantum theory and nuclear physics. There are three hours of lecture and one two-hour laboratory per week. Students who have received credit for PHY 111 or PHY 112 cannot subsequently receive credit for PHY 101. In the case that a student completes PHY 101 prior to completing PHY 111 or PHY 112, then PHY 101 will count as free elective credit only.

PHY 121 CALCULUS BASED PHYSICS I
 (Offered upon sufficient demand) **4 CREDITS**
Corequisite: MAT 224

Calculus-based general physics course which covers: mechanics, which includes the study of linear, circular and rotational motion and how Newton's laws, and the concepts of energy and momentum can be applied, thermodynamics including temperature, heat transfer, and changes in state, and analysis of the sinusoidal nature of simple harmonic motion. There are three hours of lecture and one two-hour laboratory per week.

PHY 122 CALCULUS BASED PHYSICS II
 (Offered upon sufficient demand) **4 CREDITS**
Prerequisite: PHY 121

Calculus-based general physics course is a continuation of General Physics I. The following topics include: wave phenomena and sound, electricity and magnetism, optics, and topics from modern physics including quantum theory and nuclear physics. There are three hours of lecture and one two-hour laboratory per week.

Political Science

PSC 100 GOVERNMENT & POLITICS IN AMERICA
 (Offered Spring and Summer) **3 CREDITS**
Prerequisite: Completion of ENG 101S or placement in ENG 101.

Gen Ed Category: Social Sciences

This course is an introduction to the United States system of federal and constitutional government. A special emphasis is placed on the means by which citizens actively participate in public policy decisions, and the relationship between the branches of national government, and of the states to the central (Federal) system. This course fulfills the SUNY General Education requirement for the Social Sciences Knowledge and Skill Area.

PSC 120 INTRO TO POLITICAL SCIENCE COMPARATIVE POLITICS
 (Offered upon sufficient demand) **3 CREDITS**
Prerequisite: Completion of ENG 101S or placement in ENG 101.

An introductory level course in Political Science with a specific focus on Comparative Politics. While students will gain some familiarity with the major areas of the discipline (Political Thought, International Relations & Domestic Politics), the primary focus of this course will be on how governments, political groups, and political procedures vary across countries of a democratic, nondemocratic, developed and developing nature. Specifically, the course will provide a comparative political analysis of a number of countries including the United States, Great Britain, India and China.

PSC 200 CONSTITUTIONAL LAW
 (Offered upon sufficient demand) **3 CREDITS**
Prerequisite: Completion of ENG 101S or placement in ENG 101.

This course is a study of the relationship between the Supreme Court and the political elements of the United States system of national and state government, with emphasis on civil liberties and civil rights.

PSC 220 WORLD POLITICS
 (Offered upon sufficient demand) **3 CREDITS**
Prerequisite: Completion of ENG 101S or placement in ENG 101.

This course examines the major developments in the field of International Relations over the past two hundred years. Specific areas addressed will include key theoretical approaches to the study of International Relations (e.g., Realism, Liberalism, etc.), system, state and individual levels of analysis, nationalism and transnationalism, diplomacy, international law and morality, national and international security, international trade, investment and monetary relations, the north/south debate and human rights. The structures and functions of various intergovernmental (IGOs) and nongovernmental (NGOs) organizations on both a regional and global scale will also be examined.

PSC 231 HISTORY OF POLITICAL IDEAS
 (Offered upon sufficient demand) **3 CREDITS**
Prerequisite: Completion of ENG 101S or placement in ENG 101.

This course surveys a number of key figures in the History of Political Thought. In this regard, particular, yet not exclusive, attention will be paid to the political thought of Plato, Aristotle, St. Augustine, St. Thomas Aquinas, Machiavelli, Hobbes, Locke, Rousseau and Marx. Specific themes under consideration will include reflections on the character of justice, authority, obligation and freedom with a view to the appropriate political order for man and the proper relationship of the individual to

the state.

PSC 240 STATE & LOCAL GOVERNMENT

(Offered Fall and Spring)

3 CREDITS

Prerequisite: Completion of ENG 101S or placement in ENG 101.

Gen Ed Category: Social Sciences

This course is an introduction to the organization, structure, and functions of state, county, and municipal governments.

Psychology

PSY 101 INTRODUCTION TO PSYCHOLOGY

(Offered Fall, Spring and Summer)

3 CREDITS

Prerequisite: Placement in ENG 101.

Gen Ed Category: Social Sciences

This course is a survey of the major areas and theories in psychology, introducing students to the research methods, terminology and diversity of contemporary psychology. The course will cover topics such as principles of personality, learning, thought, memory, biopsychology, emotion, stress, mental health, social psychology and developmental processes.

PSY 230 HUMAN DEVELOPMENT

(Offered Fall and Spring)

3 CREDITS

Prerequisites: PSY 101, ENG 101.

This course provides a general introduction to the area of Developmental Psychology and a survey of developmental processes that influence the growth of the physical, intellectual, and socio-emotional aspects of the person throughout the lifespan.

PSY 240 SOCIAL PSYCHOLOGY

(Offered Fall and Spring)

3 CREDITS

Prerequisites: PSY 101; placement in ENG 101.

This course is an introduction to the major concepts, theories, and current issues dealing with socio-psychological phenomena such as conformity, persuasion, prejudice, friendship, aggression, and altruism. The course acquaints students with major research findings in the area, and practical applications/implications of the major principles discussed.

PSY 247 HUMAN SEXUALITY

(Offered Fall)

3 CREDITS

Prerequisite: Placement in ENG 101.

This is a survey course designed to provide students with a broad range of information about sexuality and sex roles. Using an interdisciplinary approach, the course discusses sexuality from biological, psychological, and sociological perspectives.

PSY 250 APPLIED PSYCHOLOGY

(Offered Fall and Spring)

3 CREDITS

Prerequisites: PSY 101, ENG 101.

This course is an overview of the application of theories and principles from biological, behavioral, cognitive and social psychology to the fields of counselling, mental health, health, education, stress and coping, and, the workplace.

PSY 260 PSYCHOLOGY OF WOMEN

(Offered upon sufficient demand)

3 CREDITS

Prerequisites: PSY 101; ENG 101.

This course explores the nature and extent of gender differences and the processes by which those differences emerge. Students will critically evaluate theories and research regarding gender as well as discuss their own experiences and values.

PSY 280 ABNORMAL PSYCHOLOGY

(Offered Fall and Spring)

3 CREDITS

Prerequisites: PSY 101; placement in ENG 101.

This course is designed to give an appreciation and understanding of the etiology, nature, and treatment of selected emotional and psychological disorders. The central topics of this course will cover abnormal behavior in our society, casual factors, stress, the various psychological problems and mental disorders via DSM IV, clinical assessment, psychological treatments and contemporary issues in Abnormal Psychology.

Reading

RDG 095 READING FOUNDATIONS

(Offered Fall and Spring)

0 CREDITS

Required on the basis of placement test.

This course is designed to help students become active readers while developing basic reading and vocabulary skills necessary for effective beginning college-level reading and study skills. Specific skills embedded in the course include determining the meanings of unfamiliar words in context, identifying and organizing main ideas and key details, paraphrasing, and summarizing. Students must demonstrate mastery of the course material by earning a C or better on a standardized department final exam, as well as a grade of C or better to pass this course. The course is not intended for non-native speakers of English.

Recreation

REC 100 INTRODUCTION TO RECREATION & LEISURE SERVICES

(Offered upon sufficient demand)

3 CREDITS

This course is designed to present a foundation for the study of leisure and organizations delivering leisure services. This course provides an overview of the philosophical, historical, social, cultural, political and economic factors influencing leisure services. Additional focus will be placed upon the various agencies providing recreational services.

Science

SCI 110 FOUNDATIONAL SKILLS IN SCIENCE

(Offered Fall and Spring)

1 CREDIT

Prerequisite: Placement into ENG 101 and MAT 100

This is a foundation course designed for science students to prepare them for course work in science classes. Students will be introduced to scientific writing, writing effective lab reports, how to perform literature searches, how to evaluate sources, use of spreadsheets, constructing and evaluating graphs and tables, scientific measurement, handling data and use of statistics for data analysis. *One contact hour per week for 15 weeks or 2 contact hours per week for 7 weeks.*

Social Work

SWK 101 INTRODUCTION TO SOCIAL WORK

(Offered upon sufficient demand)

3 CREDITS

This course provides an introduction to the social work profession and prepares students for entrance to the social work major. Students are introduced to the attributes, contexts, fields of practice, and practice settings of professional social work. Practice with specific client groups is examined and students are encouraged to begin identifying practice areas of interest to them.

SWK 260 INTRODUCTION TO SOCIAL WELFARE

(Offered Spring only)

3 CREDITS

Prerequisites: ENG 101, SOC 101, SWK 101, and

prior completion of a minimum of 24 credits.

The history, organization, and adequacy of major cash support, in-kind, and social services programs in the United States are analyzed in this course. Attention is focused on the ideological, political, and economic factors that have shaped the development of such initiatives. The emergence of social work as a profession and the role of social workers in social welfare programs is examined.

Sociology

SOC 101 INTRODUCTION TO SOCIOLOGY

(Offered Fall, Spring and Summer upon sufficient demand)

3 CREDITS

Prerequisite: Placement in ENG 101.

Gen Ed Category: Social Sciences

This course explores culture and society highlighting how these dynamic forces are created by and affect human social behavior, particularly in contemporary society. Major theoretical perspectives within sociology are emphasized throughout the course and the methods that sociologists use to study social phenomena are discussed. Topics studied include: the process of socialization, social interaction, group dynamics, bureaucracies, deviance, social stratification and inequality on the basis of social class, race, and gender. Social change, social movements and collective behavior are also addressed.

SOC 102 SOCIAL PROBLEMS

(Offered upon sufficient demand)

3 CREDITS

Prerequisites: SOC 101; placement in ENG 101.

This course analyzes contemporary problems of American society through the application of different sociological perspectives. Topics include (but are not limited to) poverty, racism, sexism, problems within the family, crime, and ecology. Primary emphasis is placed on the structure of American social institutions and how social problems arise from those structures.

SOC 205 SOCIOLOGY OF WOMEN

(Offered upon sufficient demand)

3 CREDITS

Prerequisites: SOC 101; Placement in ENG 101.

This course explores the ways that gender and systems of inequality on the basis of gender impact the lives of women in America and around the world. Discussions include: the historical roots of the current system of gender inequality; the ways that both women and men perpetuate women's unequal status; the impact of inequality on the lives of women; and the future of women's status relative to men.

SOC 209 AGING IN SOCIETY

(Offered upon sufficient demand)

3 CREDITS

Prerequisites: SOC 101; placement in ENG 101.

This course will explore aging as a social phenomenon (not just a biological fact) in order to more fully understand the social and personal implications of the aging process. Both "macro" and "micro" perspectives will be applied to answer questions about the experience of aging for the individual and their society. The diversity of the population referred to as "elderly" will be emphasized as students explore the cultural, social, economic, political, health, and personal dimensions of becoming old and being old in America.

SOC 212 SOCIOLOGY OF THE FAMILY

(Offered upon sufficient demand)

3 CREDITS

Prerequisites: SOC 101; placement in ENG 101.

This course offers a comparative theoretical study of family organization in different societies. The dynamic nature of the family institution in American society is a core theme. Historical and contemporary issues are analyzed to include cross-cultural discussions regarding marital interaction, parent-child relations, sexual behavior, divorce, remarriage, and death.

SOC 215 SOCIOLOGY OF HEALTH AND ILLNESS

(Offered upon sufficient demand)

3 CREDITS

Prerequisites: SOC 101; placement in ENG 101.

This course provides a sociological analysis of health and illness. Topics include: how social factors (i.e. race, social class, and gender) influence health; factors which influence an individual's response to illness; social dynamics which have shaped and continue to influence the delivery of health care both nationally and internationally; and ethical issues our nation currently faces regarding health care.

Spanish

SPA 101 ELEMENTARY SPANISH I

(Offered Fall and Spring)

3 CREDITS

Gen Ed Category: Foreign Language

Elementary Spanish I is designed for the beginning student with no previous experience in Spanish. The main objectives of this course are to help students develop effective communication skills in Spanish through the elementary development of the four basic language skills (listening, speaking, reading and writing), while focusing on and critically examining cultural beliefs, values and aspects of everyday life in Spanish-speaking nations.

SPA 101P ELEMENTARY SPANISH I FOR PROFESSIONALS

(Offered upon sufficient demand)

3 CREDITS

Gen Ed Category: Foreign Language

This course is designed for the beginning student with no previous experience in Spanish. The main objectives of this course are the elementary development of the four basic language skills (listening, speaking, reading and writing), while focusing on using culturally appropriate Spanish in basic professional (health care, social services, law, tourism, and business) situations. This course is equivalent to SPA 101.

SPA 102 ELEMENTARY SPANISH II

(Offered Fall and Spring)

3 CREDITS

Prerequisite: SPA 101 or 2-3 units of high school Spanish, or equivalent.

Gen Ed Category: Foreign Language

Elementary Spanish II is a direct continuation of SPA 101 with further development of the four language skills to a high novice level and continued introduction to Hispanic Culture.

SPA 201 INTERMEDIATE SPANISH I

(Offered upon sufficient demand)

3 CREDITS

Prerequisite: SPA 102 or 4 units of high school Spanish, or equivalent.

Gen Ed Category: Foreign Language

Intermediate Spanish I is a second year, first semester course designed for students with previous experience in Spanish. The main objectives of this course are to help students

develop effective communication skills in Spanish through the development of the four basic language skills (listening, speaking, reading, and writing) and cultural knowledge.

SPA 202 INTERMEDIATE SPANISH II
(Offered upon sufficient demand) **3 CREDITS**

Prerequisite: SPA 201 or 5 units of high school Spanish, or equivalent.

Gen Ed Category: Foreign Language

Intermediate Spanish II is a direct continuation of SPA 201 with further development of the four language skills and cultural knowledge to a high intermediate level.

Theatre

THE 110 THEATRE & PERFORMANCE
(Offered Fall and Spring) **3 CREDITS**

Gen Ed Category: The Arts

This course is an introduction to theater as an art form, which will be addressed through a broad overview of the history of theater. Work in the course will focus on the fundamentals of acting and the relationship established between performer and audience. Students will prepare and perform individual, duo, and group scenes. In addition, students will learn about the process and theory of directing and production.

THE 115 BROADWAY MUSICAL HISTORY
(Offered upon sufficient demand) **3 CREDITS**

Gen Ed Category: The Arts

This course traces the development of the American musical theatre from its late 19th Century roots to the present, viewing the musical as entertainment, art form, and commercial enterprise. The dramatic literature, music, personalities, and traditions of musical theatre are explored, along with the effect of social, political, and economic influences. This is a critical appreciation course, not a production course.

Wind Energy & Turbine Technology

WTT 101 INTRODUCTION TO WIND ENERGY & WIND TURBINE TECHNOLOGY
(Offered Fall and Spring) **4 CREDITS**

This course is the first course in a series of four courses designed to cover the history, economics, politics, regulations and future of wind energy in the U.S. and elsewhere. Topics include basic wind turbine construction including; civil engineering, site locations, design features and specifications. The mechanical and electrical components of the wind turbine will be explained. Students will be able to explain how the blades on a wind turbine create lift and how that lift turns the rotor and creates electrical power. There are three hours of lecture and two hours of laboratory per week.

WTT 102 WIND TURBINE MECHANICAL SYSTEMS
(Offered Fall only) **3 CREDITS**
Prerequisite: WTT 101

This course is the second course in a series of four courses and is designed to cover the identification and analysis of the components, gearboxes and other mechanical systems that make up subsystems of modern wind turbines. Students will be able to identify types and specifications of different types of fasteners, the effects of torque on the fasteners and how lubricants are used in the components of a wind turbine. The conversion and transfer of energy from the

wind through the power train of a wind turbine will be illustrated and explained. There are one hour of lecture and four hours of laboratory per week.

WTT 103 SAFETY AT HEIGHT AND RESCUE
(Offered Spring, and with sufficient demand) **1 CREDIT**

This course is designed to instruct the student in the use of safety equipment, equipment inspection procedures, evacuation procedures, and rescue techniques when working at heights. This course will cover general wind turbine safety, fall protection and work positioning systems, equipment use and inspection, shock-absorbing fall arrest vs. work positioning lanyard, mitigating harness-induced suspension trauma, proper anchoring methods, rescue and evacuation protocol, automatic Descent Control Devices, personal escape and rescue systems (e.g. PDO), load raising and transfer methods, fall recovery and rescue (e.g. from nacelle or nose cone), ladder rescue, and Hub & Yaw rescue.

WTT 201 POWER GENERATION & DELIVERY
(Offered Fall only) **3 CREDITS**
Prerequisite: ETE 101

This course is the third course in a series of four courses and is designed to cover the in-depth study of the components of the input electrical power delivery systems for wind generation. Students will be able to explain the theory and operation of wind generators and explain the link between generators and converters. The wind farm high voltage underground and overhead power collection system will be explained along with how it is connected to the power grid via the sub-station. There are one hour of lecture and four hours of laboratory per week.

WTT 202 TURBINE TROUBLESHOOTING & REPAIR
(Offered Spring only) **3 CREDITS**
Prerequisites: WTT 102 and ETE 102;
Corequisite: WTT 201

This course is the last course in a series of four courses and is designed to cover the practice of installation, operation, maintenance, troubleshooting and repair of wind turbine mechanical systems and turbine blades. The student will work with electric/electronic/mechanical equipment using switches, fuses, breakers, interlocks, isolating valves and proper grounding techniques. Troubleshooting and repair of failed mechanical and electrical equipment will be explained and demonstrated. There are six hours of laboratory per week.

WTT 214 INTERNSHIP/FIELD TRAINING
(Offered upon sufficient demand) **1 CREDIT**
Prerequisite: WTT 102;
Corequisites: WTT 201 and WTT 202

The WTT Internship will provide students with a supervised, on-the-job, work experience related to wind turbine systems. Students are required to work a minimum of forty hours at a sponsor site and meet with the instructor for approximately four class hours during the semester.

Center for Community and Workforce Development

Department Mission

The Center for Community and Workforce Development provides life-long learning and improvement in the quality of life for the diverse community we serve through effective education and training. We respectfully provide access for all through innovative programs that meet the current and future needs of the North Country region creating economic and social growth.

Clinton Community College's Center for Community and Workforce Development (CCWD) helps address both immediate and long term needs through diverse workforce training programs for business, industry, and community organizations. CCWD offers a variety of flexible non-credit programs designed for employees as well as individuals looking for professional development.

Training courses and programs are designed to provide maximum learning with minimal downtime. They combine lecture and hands-on lab work, and are taught by instructors with a wide variety of work experience in their respective profession. There are existing training programs to choose from, or programs can be customized to meet specific needs.

Customized training program examples include but are not limited to:

- Entry Level Industrial Training: Blueprint Reading, Basic Electricity, OSHA Safety Training
- Skilled Technicians: PLC I & II, Robotic programming, Robotic Preventative Maintenance,
- Leadership, Time Management, Conflict Management, and Supervisor Training
- Manufacturing: MSSC Certified Production Technician Certifications

INSTITUTE FOR ADVANCED MANUFACTURING

The Institute for Advanced Manufacturing (IAM) at Clinton Community College is a new 30,000 square foot, state of the art facility that houses Clinton's technology programs. The IAM also serves as a regional hub for manufacturing education, with flexible teaching/learning space and courses available for manufacturers to advance their workforce.

Professional Enrichment Programs

The Center for Community and Workforce Development offers non-credit courses and programs in a variety of areas. CCWD offers the opportunity to learn about different educational options with a variety of non-credit short-term trainings.

Register in one of our condensed classes for professional development or take a longer certification or training program. CCWD always look to expand programs essential to changing business practices.

MANUFACTURING AND TECHNOLOGY

The Manufacturing Skill Standards Council

(MSSC) is an industry-led, training, assessment and certification system focused on the core skills and knowledge needed by the nation's front-line production and material handling workers.

About the Program

The CPT Certification addresses the core technical competencies of higher skilled production workers in all sectors of manufacturing. MSSC awards certificates to individuals who pass any of its 5 production modules, and a full Certified Production Technician (CPT) certification to those who pass all four original modules. Clinton Community College can help determine the needs and discuss the specifics for a company's particular program.

NABCEP PV Entry Level

The course is designed for individuals who are interested in learning about the fundamentals of Photovoltaic (PV) applications, system design, installation and operation of grid-tied and stand-alone PV systems. This is a prep course and upon successful completion of the coursework, a student is eligible to sit for the PV Entry Level Exam.

Prerequisites: High School Diploma or GED; PV basics course or proof of previous electrical experience/training.

Welding Essential Skills I & II

Introductory MIG welding course is designed to introduce Metal Inert Gas (MIG) welding, a process in which an electric arc forms between a consumable MIG wire and the workpiece metal causing them to melt and join.

The welding training system's curriculum is specifically designed to instruct welders with a focus on welding safety, basic welding, welding joints and welding analysis techniques using various metals. As an example of what is covered, learners will study the angle grinder operation, workpiece preparation, welder setup and adjustment, tack welds, lap and t-joints.

Each level provides 45 hours of instruction, with over 80% hands-on in the welding lab.

LEADERSHIP AND SUPERVISORY TRAINING

"People quit before they quit companies."

- Monday Morning Leadership by David Cottrell

The leadership series is designed to give both current and potential mid level supervisors the skills they need to succeed in their positions. The courses combine both theory and practical applications to provide the skills necessary for the development of a dynamic, professional, and empowered team. Supervisors will learn how to use their strengths to create and foster a cohesive team and increase productivity. Individuals can enroll in the entire series or select from the topics that are most relevant to their needs. Clinton Community College's leadership training courses provide the foundation of a leadership program that is timely, flexible and can be tailored to meet your organization's specific needs.

Leadership Theory

What makes a good leader? Is there a difference between a leader and a manager? This course will look at the evolution of leadership theory by examining different leadership philosophies. Along with leadership theory, the training will integrate personality theory and styles into the course to connect leadership theory with the individual. Topics will include transactional vs. transformational leadership, types of leadership (democratic/laissez-faire/authoritarian) as well as examining the "dark side" of leadership (Narcissism/power/compulsive behavior/passive aggressive behavior).

Teamwork

What does it take to be on a successful team? The ability to work in teams is vital to the success of any organization. This course will examine the basics of building successful teams, along with the essential techniques for establishing team building through the stages of team formation and the ten principles of employee empowerment. Participants will learn skills specific to effective decision making, agency culture, and teamwork philosophy while receiving tips on the 12 C's.

Communication

Effective communicators are those who not only know what to say but how to say it. This course will explore the types of communication and what communication means to managers. Participants will discover their personal communication styles while exploring the traits of an effective communicator. Participants will learn to frame communication as the impetus for problem solving, as well as learn how to remove barriers to effective oral, written and nonverbal communication. Participants will explore the importance of understanding communication networks as each serves as a vital role in continued organizational effectiveness.

Self-Assessment/Reflection

So how am I doing? This course is designed to provide participants with an opportunity to explore the importance of self-awareness as it applies to personal success as a leader. Participants will examine the key behaviors of effective managers, while assessing, practicing, and implementing one's own leadership style. Participants will develop a personal

collaborative learning plan which will carry back to their agency/organization. Self-assessment provides practical application skills necessary for cohesive and successful agency implantation.

MindEdge: Management and Leadership Online Programs

Clinton Community College has partnered with MindEdge to deliver online management and leadership training.

All courses are self-paced, delivered 100% online, and available 24/7 making learning convenient and accessible anytime and anywhere with internet access.

These high quality courses are ideally suited for new managers, new hires or any professional seeking cross-functional training or needing to strengthen leadership, management and communications skills. Our programs allow you to study at home, at work, or on the go.

HEALTH CAREER PROGRAMS

Emergency Medical Services

CCWD offers medical career training without having to enroll in a college degree program. Train in the field of Emergency Medical Services to become NYS Certified in comprehensive programs designed for individuals who want to be part of the preparedness, response and recovery, for emergencies. EMS is dedicated to promoting a sufficient, stable, and well-trained EMS workforce, as well as enhancing the health and safety of all EMS providers.

The following courses are offered:

- Basic Emergency Medical Technician (EMT-B)
- Advanced Emergency Medical Technician (AEMT)
- Certified First Responder (CFR)
- Refresher courses for all levels

Career Step: Online Health Care Programs

Be part of a rapidly growing industry and train for a career in Healthcare.

CCWD has partnered with Career Step to offer online career training programs. The training programs allow students to participate in self-paced learning for opportunities in healthcare and administrative services.

Study on your time and gain the skills you need to get a job in the following areas:

- Executive Assistant
- Medical Administrative Assistant
- Medical Coding and Billing
- Medical Transcription and Editing
- Pharmacy Technician
- ICD-10 Fast Track

Innovative Partnerships

CCWD, as a strong community partner, has helped design and deliver quality programs that emphasize our commitment to our community.

DEPARTMENT OF SOCIAL SERVICES EMPLOYEE TRAINING PROGRAM

CCWD partners with the Department of Social Services in a grant funded training program that allows employees the opportunity to engage in professional development.

Program Overview

Clinton Community College provides an opportunity for Social Services employees in Clinton County to enhance their job skills and competencies by taking college credit and non-credit courses which have been approved for funding by Clinton County Department of Social Services. The administration of the grant program has a positive academic performance of the Department of Social Services employees.

ASSEMBLING INDUSTRY: MANUFACTURING EDUCATION (AIME)

A.I.M.E is targeted training developed in partnership across educational institutions, the workforce system and area employers to give students the hands on training they need to be successful in the field. The program focuses on both technical and job readiness skills. Along with the training, students will have the opportunity to tour area companies to view their operation and learn about available jobs and careers. For those that successfully complete the program, a targeted interview day is scheduled with a variety of employers that have open positions.

The program developed through a partnership of different organizations including CV-TEC, Clinton Community College, ETS, The Development Corporation, The Plattsburgh Chamber of Commerce, CITEC and OneWorkSource. The training incorporates OSHA 10 for general industry, Lean 101, Hand/Power tool safety, precision measurement, blueprint reading and electrical assembly. To complement the technical skills training the program incorporates the National Work Readiness Credential which focuses on equally important skills such as situational judgment, Conflict resolution and active listening.