



**Bunker Hill  
Community College**

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# Fall 2015 Course Descriptions

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# **BUNKER HILL COMMUNITY COLLEGE**

## **FALL 2015 COURSE SCHEDULE**

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## SECTION CODES & ABBREVIATIONS

<b>TERM:</b>	
<b>2015FA</b>	<b>Fall Session</b>

<b>TEACHING METHODS:</b>	
<b>LEC</b>	<b>Lecture</b>
<b>LAB</b>	<b>Laboratory Lab Practicum and</b>
<b>L/L</b>	<b>Lecture</b>
<b>HYB</b>	<b>Hybrid</b>
<b>WEB</b>	<b>Online</b>
<b>SEM</b>	<b>Seminar</b>
<b>CLIN</b>	<b>Clinical</b>
<b>GSS</b>	<b>Self-Guided Learning</b>

<b>DAYS OF THE WEEK:</b>	
<b>M</b>	<b>Monday</b>
<b>T</b>	<b>Tuesday</b>
<b>W</b>	<b>Wednesday</b>
<b>TH</b>	<b>Thursday</b>
<b>F</b>	<b>Friday</b>
<b>S</b>	<b>Saturday</b>
<b>SU</b>	<b>Sunday</b>

<b>FALL SESSION:</b>	
<b>01-58</b>	<b>Charlestown Day</b>
<b>M1-M4, T1-T4, W1-W4, H1-H4, F1-F4</b>	<b>Charlestown Evening</b>
<b>54, 55</b>	<b>Grant Programs</b>
<b>EB</b>	<b>East Boston</b>
<b>LC</b>	<b>Center for Self-Directed Learning</b>
<b>MH-MH4</b>	<b>Malden High School</b>
<b>SM</b>	<b>Streaming Media</b>
<b>WB-WB4</b>	<b>Web Courses</b>
<b>WBL</b>	<b>Online Late Start Courses</b>
<b>WBM</b>	<b>Mass Colleges Online</b>
<b>70-79</b>	<b>Chelsea Day</b>
<b>87</b>	<b>Somerville</b>
<b>90-94</b>	<b>Chelsea Evening</b>
<b>Q1-Q4, R1-R4</b>	<b>Mini Session Courses</b>
<b>S1-S4</b>	<b>Saturday</b>
<b>SU-SU4</b>	<b>Sunday</b>

<b>COURSE LOCATIONS:</b>	
<b>CHAR</b>	<b>Charlestown</b>
<b>CHEL</b>	<b>Chelsea</b>
<b>HBLDG</b>	<b>H-Building</b>
<b>MLDN</b>	<b>Malden</b>
<b>ONLNE</b>	<b>Online</b>
<b>CSDL</b>	<b>Center for Self-Directed Learning</b>

# Bunker Hill Community College

## Fall 2015 Course Descriptions

<b>Course</b>	<b>Long Title</b>	<b>Description</b>	<b>Min Credits</b>
ACC-101	Principles of Accounting I	After a brief consideration of the meaning and purpose of accounting, this course explores the basic statements of an accounting system: the balance sheet, the income statement and the statement of owner's equity. Students will examine the accounting cycle with an emphasis on the methods of accumulating and summarizing data generated by business transactions. Students will apply their manual accounting skills to an automated accounting system using general ledger software. Areas of concentration will include adjusting entries, closing process, inventory analysis, merchandising, transactions, cash control procedures, receivables, and payables. Prerequisite: Academic Reading III (ESL098) or Reading Skills II (RDG095).	3
ACC-102	Principles of Accounting II	This course will expand upon the basic concepts and theories that students learned in the Principles of Accounting I course. Students will be expected to apply their knowledge in a managerial decision-making mode. Areas studied include, but not limited to, the following: examine long-term assets and liabilities; financial statement analysis; transactions unique to the corporate business structure; bonds payable; planning and controlling using master budgets and cost behavior recognition utilizing cost-volume analysis as well as gaining exposure to accounting for manufacturers. Prerequisite: Principles of Accounting I (ACC101).	3
ACC-105	Accounting Information Systems	This course introduces students to Accounting Information Systems. The course focuses upon integrated systems, set up, and applications. The modules covered include, among other topics: general ledger, report writing, invoicing, purchasing, inventory control, accounts receivable, accounts payable, cash receipts, cash disbursements, payroll, and spreadsheet application. Prerequisites: Principles of Accounting I (ACC101), Writing Skills II (ENG095) or placement and Academic Reading III (ESL098) or Reading Skills II (RDG095).	3
ACC-107	Accounting Forensics	This course introduces students to the auditing process and prepares them to perform forensic audit and examination in conformity with pertinent industry standards. Students will learn comprehensive perspectives and skills in regards to occupational fraud and the technicality of fraud examination including searching accounting information, obtaining documentary evidence, interviewing witnesses and potential suspects, and conducting forensic document examination. This course will also provide electronic techniques required to audit. Prerequisite: Principles of Accounting II (ACC102).	3

<b>ACC-201</b>	<b>Intermediate Accounting I</b>	This course covers, in detail, financial accounting, and generally accepted accounting principles. After a review of the accounting cycle, issues in revenue recognition and the time value of money are discussed. The four main financial statements are studied. Specific accounting issues pertaining to various current assets are covered. Prerequisite: Principles of Accounting II (ACC102).	3
<b>ACC-202</b>	<b>Intermediate Accounting II</b>	A continuation of Intermediate Accounting I (ACC201), this course discusses accounting problems for long-term assets, current, and long-term liabilities. Issues in investments leases, employee compensation, and taxes are covered. Accounting for shareholder equity and earnings per share are covered. The preparation of the Statement of cash flow is studied. Prerequisite: Intermediate Accounting I (ACC201).	3
<b>ACC-203</b>	<b>Federal Income Tax I</b>	This course provides a comprehensive explanation of tax principles dealing with individuals and small businesses. The course covers modules in federal and state income tax processes, concepts, and applications as well as other topics. Prerequisite: Principles of Accounting II (ACC102).	3
<b>ACC-204</b>	<b>Federal Income Tax II</b>	A continuation of Federal Income Tax I (ACC203), this course discusses the theoretical tax concepts that are applicable to corporations, partnerships, and trusts. The course covers both effective tax research and planning techniques for these types of entities. Prerequisite: Federal Income Tax I (ACC203).	3
<b>ACC-207</b>	<b>Cost Accounting</b>	After an introduction to the nature of cost accounting and key definitions, this course covers the accumulation of costs through a job order system and a process system. It also covers the accounting for and control of materials, labor and factory overhead. Prerequisite: Principles of Accounting II (ACC102).	3
<b>ACC-217</b>	<b>Mass Tax Law I</b>	After an introduction to the Massachusetts General Laws relating to taxation and the organization and role of the Massachusetts Department of Revenue, this survey course will focus on the Massachusetts statutory provisions relating to miscellaneous excises, the taxation of individuals and corporations, including the administration and enforcement of these provisions by the Massachusetts Department of Revenue. Other areas of study covered in this course include: filing requirements for major tax types; assessment and collection of taxes; examination and abatement. This course is critical for students to gain an understanding of specific taxation laws that pertain to the Commonwealth of Massachusetts. Prerequisite: Federal Income Tax II (ACC204).	3

<b>ACC-299</b>	<b>Mass Dept. of Revenue Internship</b>	This course enhances the academic experience for students. All internships take place at the Massachusetts Department of Revenue site. Students will engage in activities that improve knowledge of the practical world of taxation and auditing and help them gain professional experience. The internship experience applies resources gained from students' program of study to improve the quality of their contributions to the employer. Students are responsible for following all guidelines in the BHCC Internship Handbook. Prerequisite: Mass Tax Law I (ACC217) and permission of the Department Chair or Dean.	3
<b>AHE-101</b>	<b>Medical Interpreting I</b>	This course is designed for bilingual students interested in becoming integral members of the health care team in bridging the language and cultural gap between patients and providers. Students will examine issues related to interpreter ethics and the role of the interpreter in a variety of clinical settings. Topics include anatomy and physiology, pathophysiology, diagnoses, and medical treatments. Activities are designed to develop listening, memory, language-switching skills and decision-making. This course will familiarize students with the cultural dimensions of health and illness in preparation for their being assigned to an internship where they perform live interpreting under the direct supervision of a professional interpreter and mentor. Note: A grade of B- or better in this course is required for progression in the program. Prerequisites: Writing Skills II (ENG095) and Reading Skills II (RDG095) or placement.	3
<b>AHE-104</b>	<b>Vital Signs: Understanding Human Behavior for the Health Care Professional</b>	This course introduces students to the challenges and responsibilities of healthcare professionals and college students. Discussions center on cross-cultural issues, human growth and development; psychological and sociological factors involved in the patient healthcare professional relationship.	3
<b>AHE-106</b>	<b>CNA Practicum Patient Care</b>	This course consists of a clinical practicum of 21 hours at a skilled nursing facility to fulfill the State Nurse Aide Certification requirement. Additional expenses may include supplies, equipment, and/or uniforms. Corequisites: Principles of Clinical Practice (AHE110) and Patient Care Skills (AHE111).	1
<b>AHE-110</b>	<b>Principles of Clinical Practice</b>	This course includes topics in the anatomy and physiology of body systems, diseases and conditions, ethics in health care, communications, medical terminology and abbreviations, standard and transmission-based precautions, CPR, and selected clinical skills. Additional expenses may include supplies, equipment, and/or uniforms. The course is open to Allied Health certificate program students only.	3
<b>AHE-111</b>	<b>Patient Care Skills</b>	This course, taken with CNA Practicum (AHE106) and Principles of Clinical Practice (AHE110), covers the patient care theory and skills required to take the Certified Nurse Aide and Home Health exams. Corequisites: CNA Practicum (AHE106) and Principles of Clinical Practice (AHE110).	3

<b>AHE-112</b>	<b>Medical Assistant Skills</b>	This course covers the skills and theory necessary for medical assistants in hospitals and clinics. Topics include setting up and assisting for physical and specialty examinations, minor surgical procedures, routine laboratory tests, and related medical terminology and abbreviations. Corequisite: Principles of Clinical Practice (AHE110).	3
<b>AHE-117</b>	<b>Communication Skills for Health Care</b>	This course provides the student with the skills to communicate effectively as an Allied Health Professional. The course includes discussions of verbal and non-verbal communication, professional communication and behavior, interviewing techniques, adapting communication to a patient's ability to understand, patient education, cultural sensitivity, electronic communication, and fundamental writing skills.	3
<b>ARB-102</b>	<b>Elementary Arabic II</b>	A continuation of Elementary Arabic I (ARB101), this course emphasizes conversational skills and sentence structure. The course stresses practical applications of the Arabic language. The course meets General Education 'Humanities' Requirement Area 6. Prerequisite: Elementary Arabic I (ARB101).	3
<b>AST-102</b>	<b>Astronomy/ Lab</b>	This course covers an introductory study of basic astronomy, including the planets, the apparent motions of celestial objects, the seasons, constellations, comets and meteors, stars, galaxies, and the large-scale structure of the universe. The course includes current events in space exploration. The course meets General Education "Science and Technology" Requirement Area 5. Course meets: 3 hrs. lecture; 1.5 hrs. lab. Prerequisites: Writing Skills II (ENG095) and a grade of C or better in Foundations of Algebra (MAT097) or placement equivalency.	4
<b>BIO-105</b>	<b>Introduction to Biology</b>	This course will investigate the major biological concepts that connect all forms of life and are designed for students with little or no background in science. Topics will include the process of scientific inquiry, the cell as the basic unit of life, metabolism, cellular reproduction, genetics, evolutionary theory and principles of ecology. Laboratory work will introduce students to the basic investigative techniques used to study life's processes. There will be no animal dissection in this course. This course will satisfy the General Education Science & Technology Area 5 requirement for all programs and may be used to satisfy the biology prerequisite for Anatomy and Physiology I (BIO203). This course will not satisfy the general biology requirement of the Associate in Science: Biological Science program. Prerequisites: Writing Skills (ENG095), a grade of C or better in Foundations of Mathematics (MAT093), and Reading Skills II (RDG095) or placement equivalence.	4

<b>BIO-108</b>	<b>Human Biology/Lab</b>	This course is designed to introduce students pursuing careers in the health fields to the structure and function of the human body. It is intended to help students with a limited scientific background grasp the fundamental concepts of biology as well as human anatomy and physiology. Pathophysiology, genetics and relevant clinical aspects are discussed with each system so that students can apply their clinical learning. This course does not substitute for programs that require BIO203 and BIO204. Open to all students and satisfies General Education "Science and Technology" Requirement Area 5. Course meets 3 hrs. lecture; 1.5 hrs. lab. Note: May be used as a prerequisite for Anatomy & Physiology I/Lab (BIO203). Prerequisites: Writing Skills II (ENG095), a grade of C or better in Foundations of Mathematics (MAT093), and Reading Skills II (RDG095) or placement equivalent.	4
<b>BIO-111</b>	<b>Food/Nutrition</b>	This course covers a study of plant and animal sources of human food, their nutritional values, and the way they are utilized by the body in health and disease. Topics include the selection of an adequate diet, evaluation of nutrition status, nutrition in pregnancy and lactation, nutrition in infancy and in aging, weight control, alternate food patterns, ethnic foods, and nutrition-related health problems. The department recommends this course for students in Allied Health programs. The course is offered in the Center for Self-Directed Learning only.	3
<b>BIO-115</b>	<b>Nutrition Science &amp; Lab</b>	This course covers a study of plant and animal sources of human food, their nutritional values, and the way they are utilized by the body in health and disease. Topics include chemistry and biology of food, personal nutrition evaluation, nutrition-related health problems, and global food and nutrition issues. Laboratory exercises introduce students to the diagnostic procedures used by nutritionists and to reinforce learning of nutritional theory. A background in biology or chemistry is not required. The course meets General Education "Science and Technology" Requirement Area 5. Course meets: 3 hrs. lecture; 1.5 hrs. lab. Prerequisites: Writing Skills II (ENG095), a grade of C or better in Foundations of Mathematics (MAT093), Academic Reading III (ESL098) or Reading Skills II (RDG095) or placement equivalency.	4

<b>BIO-120</b>	<b>Introduction to Biotechnology</b>	This course offers an introduction to the field of biotechnology designed for students in all programs of study. General principles of biology, their applications in biotechnology and the concepts and work practices of the biotechnology industry will be presented. The medical, social, political, and ethical implications of recombinant DNA technology and the Human Genome Project will be discussed. Career opportunities in biotechnology will also be presented. Students will be introduced to basic investigative techniques and procedures used in Biotechnology research. Labs are designed to reinforce lecture concepts. This course meets General Education Science and Technology Requirement Area 5. Course meets: 3 hrs. lecture; 1.5 hrs. lab. Prerequisites: Writing Skills II (ENG095), Foundations of Mathematics (MAT093), and Reading Skills (RDG095) or placement equivalency.	4
<b>BIO-195</b>	<b>General Biology I &amp; Lab</b>	The course will examine the cell as the basic unit of life. Topics will include cell chemistry, cell structure and function, metabolism, cellular respiration, photosynthesis, and cell division. The course will conclude with an examination of the genetic and chromosomal basis of inheritance. Laboratory work will provide students with the basic skills necessary to work in advanced biology laboratory courses. This is the first required biology course in the AS Biological Science program. Students planning to enroll in a health science program should enroll in Principles of Biology I/Lab (BIO101) or Human Biology/Lab (BIO108). This course meets General Education Science and Technology Requirement Area 5. Prerequisites: Writing Skills II (ENG095) and Reading Skills II (RDG095) or placement and a grade of C or better in College Algebra-STEM (MAT194).	4
<b>BIO-196</b>	<b>General Biology II &amp; Lab</b>	As a continuation of General Biology I/Lab (BIO195), the course begins with a study of chemical basis of inheritance and protein synthesis. The course then investigates the mechanisms of adaptive evolution, speciation, phylogeny and the history of life on earth. The course concludes with a survey of the three domains of life and an introduction to the structure of populations and ecosystems. Laboratory work will continue to develop the student's critical thinking and problem solving skills. Prerequisite: Grade of C or better in General Biology I/Lab (BIO195).	4

<b>BIO-203</b>	<b>Anatomy/Physiology I &amp; Lab</b>	This is the first course in a two-semester sequence that will examine the systems of the human body using an integrated approach. Areas of study will include the structure and function of cells, histology, the physiological and anatomical aspects of support and movement systems and the nervous system. Laboratory activities will enhance the students' comprehension of the structure and function of the human body. Course meets: 3 hrs. lecture; 3 hours. Lab. Prerequisite: Grade of C or better in Principles of Biology I/Lab (BIO101), Human Biology (BIO108) or General Biology I/Lab (BIO195).	4
<b>BIO-204</b>	<b>Anatomy/Physiology II &amp; Lab</b>	As a continuation of Anatomy/Physiology I (BIO203) this course will again use an integrated approach to examine the human systems not covered in Anatomy/Physiology I. Areas of study will include the endocrine system, the cardiovascular system, lymphatic and immune systems, respiratory system, digestive system, urinary system and reproductive system. Laboratory activities will enhance the students' comprehension of the structure and function of the human body. Course meets: 3 hrs. Lecture; 3 hrs. lab. Prerequisite: Grade of C or better in Anatomy/Physiology I/Lab (BIO203).	4
<b>BIO-205</b>	<b>Microbiology &amp; Lab</b>	This course is intended for students entering health care careers and the biotechnology industry. This course will provide a solid foundation of basic physiological and biochemical activities of bacteria, viruses, fungi, and protozoa. The fundamentals of microbial physiology, genetics, and immunology will be presented with emphasis placed on virulence factors and the mechanisms in which these microorganisms establish disease. Microbiology in the workplace will be covered through a discussion of methods of physical and chemical control of microorganisms, microbial growth and enumeration. The use of anti-viral drugs, and antibiotics, the host immune response to infection, and the effectiveness of various vaccination strategies will also be discussed. The course will be completed by investigating the importance of human pathogens in patient care and nosocomial infection while looking at several major diseases. Exercises in the laboratory portion of the course deal with aseptic techniques, microbial cultivation and growth characteristics, staining and bacterial isolation techniques, differential biochemical tests, identification of unknown bacterial species, and testing effectiveness of antimicrobial agents. Course meets 3 hrs. lecture and 3 hrs. lab. Prerequisite: Anatomy and Physiology I/Lab(BIO203) or General Biology I/Lab (BIO195) or admission to the Nursing Program.	4

<b>BIO-207</b>	<b>Cell Biology &amp; Lab</b>	A study of cell structure and function including the following topics: organelles, membrane function, metabolism, gene action, communication, and regulation of growth. Some specialized cells will be discussed. The laboratory will include biotechnological, molecular, and cellular experiments. Class meets: 3 hrs. lecture; 3 hrs. lab. Prerequisite: A grade of C or better in General Biology I/Lab (BIO195), a grade of C or better in General Chemistry I/Lab (CHM201) or permission of the science and engineering department.	4
<b>BIO-208</b>	<b>Genetics and Lab</b>	This course offers a broad understanding of classical, molecular and evolutionary genetics. Highlighted topics will include the molecular and chromosomal basis of inheritance, extranuclear inheritance, gene mapping and analysis, control of gene expression in pro- and eukaryotes, Chi square analysis, probability theory, DNA mutation and repair, genetics of cancer, population and human genetics. Experimental work will focus on the theory and practice of current techniques in genetics. Prerequisite: A grade of C or better in General Biology II/Lab (BIO196) or permission of science and engineering department.	4
<b>BIO-210</b>	<b>Population Ecology &amp; Lab</b>	This course is designed to give students an overview of the science of population biology. The course covers topics related to: distribution and abundance of species; mathematical models of logistic and exponential growth; the application of the Hardy-Weinberg principle to describe changes in gene frequencies via natural selection or other processes on populations; life-history strategies, inter specific interactions; population regulation and sustainable ecosystems; and human impact on the sustainability of wild populations. Laboratory activities include basic field techniques for collection and estimation of populations, basic statistical analysis, computer simulation and formal lab exercises. Lab experiments are designed to facilitate an understanding of basic scientific field research and principles of population ecology. This course is designed for advanced science students and may be taken as an elective for the general biology transfer program. Prerequisite: General Biology II/Lab (BIO196) or permission of the science and engineering department.	4

<b>BIO-260</b>	<b>Molecular Biotechnology</b>	<p>This capstone course presents the major concepts of molecular biology and their relationship to the field of biotechnology. The course will focus on recombinant DNA technology, genetically engineered organisms, sequencing, gene expression in prokaryotes and eukaryotes, protein expression and analysis and genomics. Advanced topics will include Bioinformatics, Protein engineering, RNA interference and biological products as therapeutic agents. Laboratory activities will emphasize proper laboratory protocol and documentation, inquiry based investigations, formal laboratory report writing, and standard laboratory skills used in biotechnology research. The course will also focus on career opportunities and hiring trends in the biotechnology industry and require that students work on their job readiness skills. Upon completion of this course, students will be qualified for entry level employment or internships in the biotechnology field. Course meets: 3 hrs. lecture, 4 hrs. lab. Prerequisites: grade of C or better in Introduction to Biotechnology (BIO120), Cell Biology and Lab (BIO207) and Genetics and Lab (BIO208) or department approval.</p>	5
<b>BME-100</b>	<b>Biomedical Engineering I</b>	<p>A first course in Biomedical Engineering (BME), this course introduces students to preliminary Biomedical Engineering topics. Topics include: the BME profession, morals and ethics, anatomy and physiology, static biomechanics, rehabilitation engineering, static bioinstrumentation, biosensors, biosignal processing, and models of neurons. MATLAB is used for ease in problem solving. Laboratory involves using a virtual instrument (Biopac) to record and analyze signals from the body. Class meets: 3 hrs. lecture; 2 hrs. Laboratory. Prerequisites: Grade of C or better in Calculus I (MAT281) and a grade of C or better in General Chemistry I/Lab (CHM201). Co-requisite: Calculus II (MAT282).</p>	4

<b>BUS-101</b>	<b>Introduction to Business</b>	This course is a survey of the purpose, role, and responsibility of business in a capitalistic society, including an introduction to the major areas of business such as: Finance, Management, Economics and Marketing. This course provides a basic foundation for the student who will specialize in some aspect of business in college, and it also provides the opportunity for non-business majors to learn about the business in which they will someday be both producers and consumers. This course will also enable students to explore career options in business, define a career path, and make connections between classroom learning and the larger business community. This course will fulfill the Learning Community Seminar requirement for first time, full-time students, to assist the student in making a successful transition from our unique urban community into an academic environment. The course will aid students in learning insights, skills, and attitudes necessary to develop academic success strategies for personal and career goals achievement. Prerequisites: Grade of C or better in Academic Reading I (ESL098) and Academic Writing III (ESL099) or Reading Skills II(RDG095)and Writing Skills (ENG090) or exemption by placement testing.	3
<b>BUS-106</b>	<b>International Business I</b>	This course is an introduction to the environments, institutions, systems and operations involved in international business. Students will learn how different economic, legal, political and cultural forces influence the conduct of international trade and investment and how international competitive strategies, firm operations and organizational structures contribute to business success or failure in the global marketplace. The impact of international trade and investment on economies, businesses and consumers will also be examined. Prerequisite: Macroeconomics (ECO201) or Microeconomics (ECO202).	3

<b>BUS-111</b>	<b>Globalization</b>	<p>This course is an exploration of the nature, reasons for and consequences of globalization. Subjects such as global economic integration, cultural convergence, global institutions, multinational corporations and global business will be discussed. Students will acquire an understanding of globalization's key aspects and trends in history, geography, politics, culture, and technology, as well as its impact on labor, standards of living and the environment. This course will also enable students to explore career options in international business, define a career path, and make connections between classroom learning and the larger business community. This course will fulfill the learning community seminar requirement for first time, full time, students, to assist the student in making a successful transition from our unique urban community into an academic environment. The course will aid students in learning insights, skills, and attitudes necessary to develop academic success strategies for personal and career goals achievement.</p> <p>Prerequisites: A grade of C or better in Academic Reading (ESL098) and Academic Writing III (ESL099) or Reading Skills II (RDG095) and Writing Skills I (ENG090) or placement.</p>	3
<b>BUS-201</b>	<b>Business Law I</b>	<p>In this introductory study of the law and its application to the individual, students learn to evaluate and analyze legal problems and systems. The course emphasizes business situations. Topics include procedural law, contracts, torts, consumer law and related areas. Prerequisites: Writing Skills II (ENG095) or placement and Academic Reading Skills III (ESL098) or Reading Skills II (RDG095) or placement.</p>	3
<b>BUS-207</b>	<b>Professional Communication</b>	<p>This course gives students a comprehensive understanding of the use and importance of effective communication in business. Students study types of written, oral, and electronic communication and develop a variety of professional communication skills essential to success in business. The course also addresses ethical and cultural issues associated with business communications. Prerequisite: Grade of C or better in College Writing I (ENG111).</p>	3
<b>CHM-120</b>	<b>Principles of Inorganic Chemistry &amp; Lab</b>	<p>This course is an introduction to the basic concepts of inorganic chemistry. Topics include measurement theory, methods of scientific investigation, atomic theory, nuclear radiation, compound formation, chemical nomenclature, chemical reactions, the mole concept, solution chemistry, acid-base chemistry, and the relevance of chemistry in health professions. Laboratory work will introduce students to basic laboratory techniques, safety regulations, and chemical hygiene. This course does not satisfy the chemistry requirement of the AS Biological Sciences or AS Engineering programs or the AA Chemistry/Physics concentrations. Course meets 3 hrs. lecture; 3 hrs. lab. Prerequisites: Writing Skills II (ENG095), Reading Skills II (RDG095), and Foundations of Algebra (MAT097) or placement equivalencies.</p>	4

<b>CHM-121</b>	<b>Principles of Organic &amp; Chemistry W/Lab</b>	This course serves as an introduction to organic and biochemistry. The naming and reactivity patterns of common organic functional groups will be presented. A study of biochemistry will introduce students to the chemical structures and reactions of lipids, carbohydrates, proteins, and nucleic acids and their role in metabolism. The standard length three hour laboratory session will serve to reinforce the concepts discussed during lectures and will provide students with practical experience in organic synthesis reactions and organic compound identification methods. This course does not satisfy the Organic Chemistry requirement of the AA Chemistry Concentration. Prerequisites: Grade of C or better in Chemical Science I & Lab (CHM110) or Principles of Inorganic Chemistry & Lab (CHM120).	4
<b>CHM-151</b>	<b>Basic Chemistry (Non-Lab)</b>	This course is an introduction to basic concepts of inorganic chemistry. The course is designed primarily for students who have not previously studied chemistry. Topics, which are presented in a multi-media, modular format, include measurement, chemical symbols and equations, physical and chemical properties, atomic structure, chemical compounds, solutions, and an overview of chemical reactions. The course is offered in the Center for Self-Directed Learning only. Prerequisite: A grade of C or better in Foundations of Algebra (MAT097).	3
<b>CHM-201</b>	<b>General Chemistry I &amp; Lab</b>	This course is a rigorous introductory course as part of a two-semester sequence that studies chemical principles. Topics include atomic structure, reaction types and equations, stoichiometry, gas laws, thermochemistry and bonding theory. Students are required to purchase approved safety goggles. Course meets: 3 hours lecture; 3 hours lab. Prerequisites: Grade of C+ or better in Precalculus (MAT197) or exemption by placement testing and a grade of C or better in College Writing I (ENG111). Note: This course is intended for students planning to major or transfer as science or engineering majors. Pre-allied health students or students requiring a one semester overview of chemistry should enroll in Principles of Inorganic Chemistry & Lab (CHM120).	4
<b>CHM-202</b>	<b>General Chemistry II &amp; Lab</b>	This course is a continuation of General Chemistry I and Lab (CHM201). Topics include solids, solutions, kinetics, equilibrium, acid-base and solubility equilibrium, thermodynamics and electrochemistry. Students are required to purchase approved safety goggles. Course meets: 3 hours lecture; 3 hours lab. Prerequisite: Grade of C or better in General Chemistry I and Lab (CHM201).	4

<b>CHM-251</b>	<b>Organic Chemistry I and Lab</b>	This course studies the chemistry of carbon compounds including nomenclature, molecular structure and functional groups. Topics include the reactivity and properties of saturated and unsaturated hydrocarbons, stereochemical relationships and nucleophilic substitution and elimination reactions. Mechanisms are presented as a unifying principle for these reactions. Students are required to purchase approved safety goggles. Course meets: 3 hours lecture; 3 hours lab. Prerequisites: Grade of C or better in General Chemistry II and lab (CHM202) and a grade of C or better in College Writing II (ENG112).	4
<b>CHM-252</b>	<b>Organic Chemistry II and Lab</b>	This course is a continuation of Organic Chemistry I and Lab (CHM251). Topics include aromatic substitution reactions, carbonyl addition reactions, acid derivatives, amines, and carbohydrates. Both the laboratory and lecture use instrumental methods for the structural analysis of organic compounds. Students are required to purchase approved safety goggles. Course meets: 3 hours lecture; 3 hours lab. Prerequisite: Grade of C or better in Organic Chemistry I and lab (CHM251).	4
<b>CHN-101</b>	<b>Elementary Mandarin I</b>	A beginning level course in modern standard Mandarin Chinese, mainly for students with no experience in the language. The goal of the course is to develop in the students through a multi-approach the four basic skills in the Mandarin language: listening, speaking, reading, and writing. The course content is geared to use in real life, and the teaching method emphasizes mutual understanding and appreciation of cultures that differ from one's own and draws on the experiences and backgrounds of both the instructor and students. After a semester's study in this course, students are expected to have achieved a general understanding of the speaking and writing systems of the Mandarin language, and be able to communicate, both in oral and writing forms (speaking, listening, reading, and writing), with some simple and daily Mandarin.	3
<b>CHN-102</b>	<b>Elementary Mandarin II</b>	The course builds on the basic skills learned in Mandarin I. It is designed for students who might be planning to visit China for business, pleasure or for further study, and it will teach students some of the unique cultural practices of the country, from the forms of courtesy to the way of asking questions. The objective of the course will be to sharpen students' oral and written communication skills. We will focus on everyday situations and combine practice in speaking with exercises in writing. The course will stress clarity in writing, and the course will teach students how to think critically in formulating statements and understanding meaning. Prerequisite: Grade of C or better in Elementary Mandarin I (CHN101) or by permission of instructor.	3

CIT-101	<b>Computer Essentials</b>	<p>This introductory course is intended for students with little to no computer experience. Students in developmental mathematics, reading and English as well as English as a Second Language (ESL) should consider this for their first computer course. This course starts with an introduction to the Windows environment and covers operating system topics appropriate for beginners, keyboarding, document processing and productivity skills necessary to function in today's electronic office environment. The course teaches students other skills necessary to use a personal computer as a tool for academic success. Utilizing the college's computer laboratories students get extensive "hands-on" personal computer experience in MS WORD as well as E-Mail, INTERNET, and World Wide Web (WWW) access and use. Students emerge from this course with an understanding of essential computer concepts and terminology, use and application of the INTERNET, keyboarding proficiency, and a high degree of competence with personal computer hardware and software. All Learner Outcomes and Competencies in this course are based on accepted, published ICT Industry Standards. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3
CIT-110	<b>Applications/Concepts</b>	<p>This survey course covers the use and application of modern computer systems. This course includes detailed coverage of fundamental computer concepts, terminology, applications, and theory. Students will get extensive 'hands-on' personal computer experience and gain a good working knowledge of MS WINDOWS and MS OFFICE. Upon completion of this course, students will have a grasp of important computer concepts and terminology, an understanding of INTERNET use and applications, a high degree of competence with personal computer hardware and software, as well as an understanding of the effects of information technology on the individual, organizations, and society. All Learner Outcomes and Competencies in this course are based on accepted, published ICT Industry Standards. Students with prior learning experience may test-out of this course by contacting pla@bhcc.mass.edu. Prerequisite: Reading Skills II (RDG095) or Academic Reading III (ESL098) or exemption from reading requirement by placement testing or enrollment in an integrated course. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3

CIT-113	<b>Information Technology Problem Solving</b>	<p>This course will give students "hands-on" experience in a wide-range of modern information technology. Several IT concepts will be introduced that will provide a basis for further study in Information Technology. Students will work on a number of projects that will give perspectives on areas of IT including but not limited to: visual and/or robotic programming, social networking tools, web design and networking. Issues of security, privacy and ethics will also be examined. Students will leave the course with an understanding of the components of modern IT systems and the scope of knowledge needed to become an IT professional. Students are expected to have access to computer with internet access outside of class as there is a major web component to the course. Designed for first-time, full-time Computer Technology students, this course will fulfill the Learning Community Seminar requirement for the Computer Information Technology Department. First year students registering for this course should not register for Computer Applications/Concepts (CIT110). This course is not for Computer Science Transfer, Gaming or Web majors. Prerequisites: Grade of C or better in Reading Skills I (RDG090) and Writing Skills I (ENG090) or placement.</p>	3
CIT-118	<b>Principles of Internet &amp; Info Security</b>	<p>This is a course in Internet and Information Security which introduces students to all major areas related to securing both personal and organizational information in the "Internet Age". Beginning with an introduction to physical and electronic security issues, students proceed to explore the legal, ethical and professional issues in information and Internet security. Topics covered include, but are not limited to, identity theft, phishing and other email scams, personal and corporate firewalls, spyware and virus scanning software, chat rooms, Internet crimes against children, cyber predators, digital computer forensics, wired and wireless home &amp; organization networks, cyber terrorism, and cyber vandalism. Students gain practical experience in Internet security considerations through a capstone Security Project. Students completing the course also attain the i-SAFE.Org certification. Prerequisite: Applications/Concepts (CIT110) or IT Problem Solving CIT113) or Introduction to Computer Science &amp; OOP (CIT120), equivalent experience or permission of the department chairperson. For additional information and/or a course syllabus contactCITDepartment@bhcc.mass.edu.</p>	3

CIT-120	<b>Intro to Computer Science and Object Oriented Programming</b>	<p>This is a first course in Object Oriented Programming (OOP) theory, logic and design. Taught in the College's "hands-on" computer classrooms, this course emphasizes the program design and development process including concepts of variables and flow control, objects, classes, methods and polymorphism. Students will use an Object Oriented Programming language as they design code, debug and implement several programs covering the topics presented. Students taking this course are expected to have solid knowledge of basic computer terminology, internet navigation and email, operating system and file management skills. Strong analytical skills are recommended for students enrolling in this course. Please note that this course is a four credit course with six contact hours and analogous homework. This course fulfills the Learning Community Seminar requirement for students in AA Computer Science, AS Computer Science, and AS Computer Engineering areas of study. Other departments may allow this course to be used as a learning community seminar for their students. Students in majors other than the ones listed above should obtain their advisor's or the leading faculty members approval before registering in the course. Prerequisites: Intermediate Algebra (MAT099), Writing Skills II (ENG095), and Reading Skills II (RDG095) or placement. Pre/corequisite: College Algebra-STEM (MAT194). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	4
CIT-121	<b>Introduction to Computer Forensics</b>	<p>This is an introductory course in Computer Forensics. Forensics Computing, Digital Forensics, or Computer Forensics is the name for a newly emerging field of study and practice that incorporates many areas of expertise. Some of these areas have been called network security, intrusion detection, incident response, infrastructure protection, disaster recovery, continuity planning, software engineering, cyber security and computer crime investigation. It is an area of practice in public law enforcement at the federal, state and local levels that deals with cyber-crime, cyber vandalism, cyber predators and cyber terrorism. In the private sector, it deals with critical infrastructure such as business, hospitals, utilities transportation, finance, education, and other key institutions. Taught in the College's hands-on laboratory students will gain an in-depth knowledge of the principles, procedures, and techniques used in digital forensic analysis. Prerequisite: Computer Applications/Concepts (CIT110), Information Technology Fundamentals (CIT112), IT Problem Solving (CIT113), or Intro to Computer Science &amp; Object Oriented Programming (CIT120) or permission of the department chair.</p>	3

CIT-125	<b>Python Programming</b>	<p>This is an introductory course designed for any student interested in learning computer programming concepts and hands on computational thinking, all in the context of the Python programming language. No prior experience in programming is necessary. Students will use their own problem solving abilities to implement programs in Python. This course will show the student how to create basic programming structures including decisions and loops. Further, students will explore unique Python data structures such as tuples and dictionaries. Students will also learn to perform basic debugging techniques. At the end of this course, the student will have learned enough concepts in computer science and programming to be able to write Python programs to solve problems on their own. This course will prepare the student to move on to the Advanced Python Programming course. Pre-requisite: Applications and Concepts (CIT110) or IT Problem Solving (CIT113) or Intro to Computer Science and Object Oriented Programming (CIT120) or Maya Foundations (CMT121) or permission of the Department Chair. For addition information and/or a course syllabus contact CITDepartment@bhcc.mass.edu. All prerequisites must be completed with a C or better.</p>	3
CIT-128	<b>Database Design with MS Access</b>	<p>This is a comprehensive course in the use and application of computers in database applications based on the most current version of Microsoft Access. The course covers all aspects of database design including entity relationship modeling, tables, reports, queries, forms and other database objects. All key MS Access functionality including Internet applications, integration with the Web and other software programs are covered. Students gain some experience using Structured Query Language (SQL) and Visual Basic for Applications (VBA) in the final component of the course. Microsoft Corporation has approved this course material as courseware for the Microsoft Business Certification (MBC) Program and students may choose to take the MBC ACCESS Certification Examination upon completion of this course. Prerequisite: Applications/Concepts (CIT110) or IT Problem Solving (CIT113) or Introduction to Computer Science &amp; OOP (CIT120), equivalent experience or permission of the department chairperson. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3

CIT-133	<b>Introduction to Microsoft Office</b>	This introductory course covers the use and application of integrated PC applications software based on the most current version of Microsoft Office. The course initially covers the MS Windows skills necessary to complete the course. Using the hands-on college computer laboratory, the course covers the following applications in detail: Word Processing, Spreadsheet, Database, Presentation Graphics and Desktop Information Management. The course emphasizes Internet applications relating to MS Office. It also covers integration among the MS Office Applications. Microsoft Corporation has approved this course material as courseware for the Microsoft Business Certification (MBC) Program and students may choose to take the MBC Certification Examination(s) upon completion of this course. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.	3
CIT-162	<b>Introduction to Networking</b>	This course introduces students to fundamental networking concepts and technologies. The material in this course encompasses a broad range of technologies that facilitate how people work, live, play, and learn by communicating with voice, video and other data. First, you will examine human versus network communication and see the parallels between them. Next, you will be introduced to the two major models used to plan and implement networks: OSI and TCP/IP. You will gain an understanding of the "layered" approach to networks and examine the OSI and TCP/IP layers in detail to understand their functions and services. You will become familiar with the various network devices, network addressing schemes and, finally, the types of media used to carry data across the network. In this course, you will gain experience using networking utilities and tools, such as Packet Tracer and Wireshark, to explore networking protocols and concepts. These tools will help you to develop an understanding of how data flows in a network. A special "model Internet" is also used to provide a test environment where a range of network services and data can be observed and analyzed. Prerequisite: Computer Applications/Concepts (CIT110) or Information Technology Fundamentals (CIT112) or IT Problem Solving (CIT113) or Intro to Computer Science & Object Oriented Programming (CIT120) or permission of the department chair. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.	3

CIT-167	<b>Routers and Routing Basics</b>	<p>The primary focus of this course is on routing and routing protocols. The goal is to develop an understanding of how a router learns about remote networks and determines the best path to those networks. This course includes both static routing and dynamic routing protocols. By examining multiple routing protocols, you will gain a better understanding of each of the individual routing protocols and a better perspective of routing in general. Learning the configuration of routing protocols is fairly simple. Developing an understanding of the routing concepts themselves is more difficult, yet is critical for implementing, verifying, and troubleshooting routing operations. Each static routing and dynamic routing protocol chapter uses a single topology throughout that chapter. You will be using that topology to configure, verify, and troubleshoot the routing operations discussed in the chapter. The labs and Packet Tracer activities used in this course are designed to help you develop an understanding of how to configure routing operations while reinforcing the concepts learned in each chapter. Prerequisite: Introduction to Networking (CIT162). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3
CIT-182	<b>PC Hardware &amp; Software</b>	<p>This course provides an excellent, interactive exposure to personal computers, hardware, and operating systems. Students completing this course will be able to describe the internal components of a personal computer, assemble a system, install an operating system, and troubleshoot using system tools and diagnostic software. They will also be able to connect computers to the Internet, share resources in a networked environment and develop greater skills and confidence in working with desktop and laptop computers. Students participate in "hands-on" activities and lab-based learning to become familiar with various hardware and software components and discover best practices in maintenance and safety. Topics covered include: laptops and portable devices, wireless connectivity, security, safety and environmental issues. Standalone virtual learning tools supplement classroom instruction and provide opportunities for interactive "hands-on" learning. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3

CIT-183	Healthcare IT Concepts I	<p>This course will provide students with the knowledge and skills to successfully understand the Healthcare IT industry and to adequately prepare for Healthcare IT Hardware/Software Support positions. Topics include privacy, wireless, mobility and security concepts necessary to provide hardware and software support in healthcare environments, including physician offices, clinics, hospitals, and third-party contractors. Students will enhance their CompTIA A+ certification skills and acquire the knowledge and skills needed to implement, deploy, troubleshoot and support healthcare IT systems in clinical settings. Students will also understand healthcare terminology, practical workflow and Healthcare IT operational and regulatory concepts while adhering to security best practices. Hands-on activities, labs, and web-based activities will provide a practical understanding of the material. Prerequisite: Applications/Concepts (CIT110) or CIT113 or CIT120 or permission of Department Chair. Pre/co-requisite: PC Hardware and Software (CIT182) or permission of department chair.</p>	3
CIT-216	Visual Basic	<p>This course covers an introduction to computer programming using Visual Basic. The course provides students with "hands-on" exposure to object-oriented programming techniques and emphasizes programming logic, using the event-driven components of Visual Basic. Using laboratory case assignments, students plan, design, and create their own Windows applications. They learn how to create a user interface, set control properties, design the logic structures of the project and write the associated Visual Basic code. Topics covered include variables and mathematical operations, decision and looping structures, procedures and functions and single level arrays. Prerequisite: Applications/Concepts (CIT110), IT Problem Solving (CIT113) or Introduction to Computer Science &amp; OOP (CIT120). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3
CIT-218	Intermediate Visual Basic	<p>Expanding on the principles of object oriented and visual programming contained in Visual Basic (CIT216), this intermediate-level course provides students with additional in-depth use of the Visual Basic language. Students gain experience working with VB arrays and data interfaces, combination controls and functions, menu design and database interfaces. Multiple Classes and Inheritance will be covered as part of the continuing exposure to object oriented programming. The course emphasizes the incorporation of databases within a Visual Basic Project. Prerequisite: Visual Basic (CIT216) or permission of the instructor and/or department chairperson. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3

<b>CIT-219</b>	<b>Information Security &amp; Assurance</b>	Emphasis in this course in Information Security and Assurance will be placed on understanding the key issues associated with protecting information, the technologies behind securing information and the subsequent detection and response to security incidents. Topics will include inspection of information assets, detection of and reaction to threats to information assets, and examination of pre- and post-incident procedures, technical responses and an overview of the Information Security Planning functions. There will be a hands-on lab component required for this course. Students taking this course will be required to sign The White Hat Oath, a Code of Ethics form the International Information Systems Security Certification Consortium, Inc. ( <a href="http://www.isc2.org">www.isc2.org</a> ). Prerequisite: Windows Operating Systems (CIT268). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.	3
<b>CIT-221</b>	<b>Advanced Computer Forensics</b>	This course provides advanced work in computer and digital forensic analysis. Emphasis in this course will be placed on file system forensic recovery, analysis and reporting, intrusion detection and analysis, and advanced use of computer forensics tools. Topics covered in Introduction to Computer Forensics (CIT121) will be expanded upon especially in the areas of file system analysis, drive imaging and backup, email and mobile devices forensics and the impact these analyses have upon investigations. Prerequisite: Introduction to Computer Forensics (CIT121).	3
<b>CIT-230</b>	<b>Help Desk Techniques</b>	This course provides students with an overview of the design, implementation, and management of a computer help desk or customer support center. Course topics include customer service skills, troubleshooting tools and methods, problem-solving strategies for common support problems, the incident management process, and user needs analysis and assessment. The course also covers industry certifications, professional associations, and standards of ethical conduct for help desk personnel. Prerequisites: Applications/Concepts (CIT110) or Chair approval. For additional information and/or a course syllabus contact CITDept@bhcc.mass.edu.	3

<b>CIT-233</b>	<b>Advanced Microsoft Office</b>	<p>This advanced course covers the use and application of integrated PC applications software based on the most current version of Microsoft Office. It covers the following applications in detail: Advanced Word Processing, Spreadsheet, Database, Presentation Graphics and Desktop Information Management applications. The course emphasizes Internet applications including on-line collaboration using MS Office. It also stresses integration of the MS Office applications.</p> <p>Microsoft Corporation has approved this course material as courseware for the Microsoft Business Certification (MBC) Program and students may choose to take the MBC Certification Examination(s) upon completion of this course.</p> <p>Prerequisite: Applications/Concepts (CIT110) or IT Problem Solving (CIT113) or Introduction to MS Office (CIT133) or equivalent experience or permission of the department chairperson. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3
<b>CIT-234</b>	<b>Decision Support Using MS Excel</b>	<p>This comprehensive course covers the use and application of Decision Support using spreadsheet software based on the most current version of Microsoft Excel. The applications include basic spreadsheet operations, charting, web queries, multiple sheet workbooks, macros, advanced functions and data base features. The course emphasizes applications involving financial decision-making, financial planning and "what-if" analysis as they relate to various business and organizational models. Internet applications of MS Excel and integration of the other MS Office programs are also covered. Microsoft Corporation has approved this course material as courseware for the Microsoft Business Certification (MBC) Program and students may choose to take the MBC EXCEL Certification Examination upon completion of this course.</p> <p>Prerequisite: Applications/Concepts (CIT110) or Introduction to Computer Science &amp; OOP (CIT120) or equivalent. experience or permission of the department chairperson. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3

CIT-236	<b>SQL Programming</b>	<p>This course introduces students to the fundamentals and functions of Structured Query Language (SQL), including relational database, table creation, updating, and manipulation concepts. Using a live data base, students learn SQL basics and then move on to the more sophisticated and challenging aspects of SQL. Students get in-depth knowledge of the language through extensive use of Internet based, industry standard SQL programming and certification testing engines. Upon completion of this course, students have the skills and competencies required to program in SQL and the background necessary to continue to intermediate and advanced courses in database procedural programming and database administration. Prerequisite: Computer Applications/Concepts (CIT110) or IT Problem Solving (CIT113) or Introduction to Computer Science and Object Orient Programming (CIT120), or permission of the department chairperson. For additional information and/or a course syllabus contact <a href="mailto:CITDepartment@bhcc.mass.edu">CITDepartment@bhcc.mass.edu</a>.</p>	3
CIT-237	<b>C++ Programming</b>	<p>In this course, students who already have been exposed to programming and Object Oriented thinking, develop the ability to correctly analyze a variety of problems and generate appropriate algorithmic solutions using the C++ Programming Language. The course emphasizes the principles of top-down structured design and Object Oriented thinking. Topics include but are not limited to branching and looping mechanisms; arrays, functions and function overloading, arguments by reference and by value as well as optional arguments; recursion; pointers, creating libraries and namespaces, structures and classes, constructors and other methods, overloading operators; file I/O; inheritance and polymorphism. Strong analytical skills are recommended for students enrolling in this course. Prerequisite: Writing Skills II (ENG095), College Algebra-STEM (MAT194) and Introduction to Computer Science &amp; Object Oriented Programming (CIT120) with grade C or better or equivalent experience with permission of the department chairperson. For additional information and/or a course syllabus contact <a href="mailto:CITDepartment@bhcc.mass.edu">CITDepartment@bhcc.mass.edu</a>. All prerequisites must be completed with a C or better.</p>	4

CIT-239	<b>JAVA Programming</b>	<p>In this course, students who already have been exposed to programming and Object Oriented thinking, develop the ability to correctly analyze a variety of problems and generate appropriate algorithmic solutions using the Java Programming Language. The course emphasizes the principles of top-down structured design and Object Oriented thinking. Topics include but are not limited to branching and looping mechanisms; arrays, functions and function overloading, arguments by reference and by value as well as optional arguments; recursion; creating packages, structures and classes, constructors and other methods, file I/O; inheritance and polymorphism. Strong analytical skills are recommended for students enrolling in this course, plus familiarity and experience working with the Internet and basic HTML tags. The course covers creating both Java Applications and Java Applets including event handling, animation, and audio. Prerequisite: Writing Skills II (ENG095), College Algebra-STEM (MAT194) and Introduction to Computer Science &amp; Object Oriented Programming (CIT120)with grade C or better or equivalent experience with permission of department chairperson. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	4
CIT-242	<b>Data Structures</b>	<p>This course prepares students to understand the fundamentals of data structures with an emphasis on software engineering. Topics include multidimensional arrays, records, dynamic memory allocation, stacks, queues, lists, trees, graphs, and others. The department strongly recommends that students achieve a grade of B- or better in Java Programming (CIT239). Prerequisite: Java Programming (CIT239) and Precalculus (MAT197). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3
CIT-243	<b>Android Development for Java Programmers</b>	<p>This course is for students who are already experienced Java programmers. It discusses not only the intricacies of Android app development, but publishing in the Market place and monetizing the apps through fee, in-app advertising or in-app billing of selling virtual goods. Topics include but are not limited to: mobile game design principles, tools and terminology, And Engine framework, Java/Dalvik and Android SDK, rendering images, using sprite sheets, creating animations, sound, creating an effective game interface, resource files, working with maps, notifications, building customer UI elements. APIs (Application Programming Interfaces) and SDK (Software Development Kits) for phones and tablets will be used. Prerequisites: Grade C or better in Java Programming (CIT239) and Precalculus (MAT197). Pre/corequisite: Advanced Java Programming (CIT285).</p>	3

<b>CIT-250</b>	<b>Collaboration Communication &amp; Integrating</b>	<p>This is a course in modern office technology which introduces students to all major areas of personal and organizational collaboration, communication and integration of MS OFFICE applications. Building on students' basic knowledge of the most current version of the core MS OFFICE applications, the course proceeds to cover in detail, the integration among OFFICE applications including Object Linking &amp; Embedding (OLE), On-Line Meeting, document sharing, and the other collaboration features of MS OFFICE. Using WORD as the "core" application, students gain practical experience in moving and linking data among all applications: WORD, EXCEL, ACCESS, POWERPOINT and OUTLOOK. Advantages and limitations of Voice over IP (VoIP) and video conferencing, along with the importance of security and other considerations involved in implementing these technologies are also covered. Students also gain experience in web enabling and publishing as well as knowledge of the principles, best practices, procedures and techniques used in implementing all of these applications in offices large and small. Microsoft Corporation has approved this course material as courseware for the Microsoft Business Certification (MBC) Program and students may choose to take the MBC Certification Examination(s) upon completion of this course. Prerequisite: Computer Applications/Concepts (CIT110) or IT Problem Solving (CIT113) or equivalent course or experience or permission of department chairperson. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3
<b>CIT-262</b>	<b>Wireless Technology</b>	<p>This course introduces students to the fundamentals of planning, installing, maintaining and troubleshooting a network supported by unbound media. It is assumed that students have no prior knowledge of wireless networks and devices. Hence, this course permits students to learn how to apply and support wireless technology in personal, LAN, MAN, CAN and WAN networks. The course is divided into two sections, one that teaches the wireless skills required to take and pass your Certified Wireless Network Administration (CWNA) exam and the other educates students on how many different wireless devices work. Prerequisite: Introduction to Networking (CIT162).</p>	3

CIT-264	<b>Networking Security</b>	<p>The goal of this course is to provide you with a fundamental understanding of network security principles and implementation. You will learn about the technologies used and principles involved in creating a secure computer networking environment. You will learn about the authentication, the types of attacks and malicious codes that may be used against your network, the threats and countermeasures for e-mail, Web applications, remote access, and file and print services. A variety of security topologies are discussed as well as technologies and concepts used for providing secure communications channels, secure internetworking devices, and network medium. Further, you will learn about intrusion detection systems, firewalls, and physical networking security concepts. In addition, security policies, disaster recovery, and computer forensics are covered. Aside from learning the technologies involved in security, you will get to understand the daily tasks involved with managing and troubleshooting those technologies. You will have a variety of hands-on and case project assignments that reinforce the concepts you read in each chapter. Prerequisite: Introduction to Networking (CIT162).</p>	3
CIT-267	<b>Switching Basics &amp; Intermediate Routing</b>	<p>The goal of this course is to develop an understanding of how switches are interconnected and configured to provide network access to LAN users. This course also teaches how to integrate wireless devices into a LAN. The primary focus of this course is on LAN switching and wireless LANs. The goal is to develop an understanding of how a switch communicates with other switches and routers in a small- or medium-sized business network to implement VLAN segmentation. This course focuses on Layer 2 switching protocols and concepts used to improve redundancy, propagate VLAN information, and secure the portion of the network where most users access network services. This course will go to great lengths to explain the underlying processes of the common Layer 2 switching technologies. The better the underlying concepts are understood, the easier it is to implement, verify, and troubleshoot the switching technologies. Each switching concept will be introduced within the context of a single topology for each chapter. The individual chapter topologies will be used to explain protocol operations as well as providing a setting for the implementation of the various switching technologies. The labs and Packet Tracer activities used in this course are designed to help you develop an understanding of how to configure switching operations while reinforcing the concepts learned in each chapter. Prerequisite: Routers and Routing Basics (CIT167). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3

<b>CIT-268</b>	<b>Windows Operating Systems</b>	This course provides students with in-depth, hands-on experience with the most commonly used versions of the Windows operating systems. Students gain experience using system file managers, utilities, set-up procedures, and other major components of the operating systems. In addition, the course emphasizes gaining an understanding of device drivers, link libraries, memory management, multi-tasking requirements, and multi-media considerations. Upon completion of the course, students have a high degree of competence in the application and use of these Windows operating systems such as Windows, DOS, and Linux. Prerequisites: Computer Applications/Concepts (CIT110), IT Problem Solving (CIT113) or Intro to Computer Science/Object Oriented Programming (CIT120) or permission of the department chairperson. For additional information and/or a course syllabus contact CITDept@bhcc.mass.edu.	3
<b>CIT-270</b>	<b>Linux Administration/Lab</b>	This course introduces students to the fundamentals of creating and maintaining a network supported by LINUX clients and servers. It is assumed that students already have a grasp of the basic LINUX commands hence the focus will be on system administration which will include but not be limited to installation, distributed computing, system administrator tools and tasks, file systems, printing, send mail, NIS, NFS, DNS/BIND and setting up a firewall. Prerequisite: Introduction to Networking (CIT162). For additional information and/or a course syllabus contact CITDept@bhcc.mass.edu.	4
<b>CIT-271</b>	<b>Batch File Programming</b>	This course teaches students how to create batch files to automate a sequence of commands, to write and use batch files for complex tasks, to use batch file subcommands, to halt the execution of a batch file and to write batch files using replaceable parameters and environment variables. Prerequisite: Linux Administration/Lab (CIT270). Pre/corequisite: Windows Operating Systems (CIT268). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.	1

CIT-273	Ethical Hacking	<p>This course introduces the information technology security specialist to the various methodologies for attacking a network. The student will be introduced to the concepts, principles and techniques, supplemented by "hands-on" exercises, for attacking and disabling a network. These methodologies are presented within the context of properly securing the network. The course will emphasize network attack methodologies with emphasis on student use of network attack techniques and tools and appropriate defenses and counter measures. Students will receive course content information through a variety of methods: lecture and demonstration of hacking tools will be used in addition to a virtual environment. Students will receive a "hands-on" practical approach in penetration testing measures and ethical hacking. There is an ethics requirement for this course and students will be required to sign the White Hat Oath. Students are expected to have access to a computer with internet access outside of class as there is a major web component to the course. Prerequisite: Windows Operating Systems (CIT268) or Linux Administration/Lab (CIT270) or permission of the department chairperson.</p>	4
CIT-274	WAN Technologies	<p>The primary focus of this course is on accessing wide area networks (WAN). The goal is to develop an understanding of various WAN technologies to connect small- to medium-sized business networks. The course introduces WAN converged applications and quality of service (QoS). It focuses on WAN technologies including PPP, Frame Relay, and broadband links. WAN security concepts are discussed in detail, including types of threats, how to analyze network vulnerabilities, general methods for mitigating common security threats and types of security appliances and applications. The course then explains the principles of traffic control and access control lists (ACLs) and describes how to implement IP addressing services for an Enterprise network, including how to configure NAT and DHCP. IPv6 addressing concepts are also discussed. During the course, you will learn how to use Cisco Router and Security Device Manager (SDM) to secure a router and implement IP addressing services. Finally, students learn how to detect, troubleshoot and correct common Enterprise network implementation issues. The labs and Packet Tracer activities used in this course are designed to help you develop an understanding of how to configure routing operations while reinforcing the concepts learned in each chapter. Prerequisite: Switching Basics &amp; Intermediate Routing (CIT267). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.</p>	3

CIT-277	<b>Health Information Networking</b>	The Cisco Health Information Networking course, offered through the BHCC Cisco Networking Academy, is a technology-focused curriculum primarily designed for students who are looking for career-oriented, entry-level healthcare focused skills that can be applied toward entry-level specialist careers in healthcare networking. Health Information Networking is a blended curriculum with both online and classroom learning. The program aims to develop an in-depth understanding of principles and practicalities needed for information technology professionals wishing to specialize in healthcare network implementations. Topics include: basic information on healthcare settings, Principles of security and privacy in healthcare, fundamentals of information technology in healthcare, fundamentals of electronic health records systems, basic information on medical practice workflows, how to adjust workflows for electronic medical record implementations, and designing, securing and troubleshooting a network to support a medical group. Prerequisite: Routers and Routing Basics (CIT167). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.	3
CIT-279	<b>Cisco CCNA Security</b>	This course equips students with the knowledge and skills needed to prepare for entry-level security specialist careers and prepare for the CCNA Security certification. This course is a hands-on, career-oriented e-learning solution that emphasizes practical experience. CCNA Security aims to develop an in-depth understanding of network security principles as well as the tools and configurations available. The following tools are covered: Protocol sniffers/analyzers; TCP/IP and common desktop utilities; Cisco IOS Software; Cisco VPN client; Packet Tracer (PT); and Web-based resources. Prerequisite: Routers and Routing Basics (CIT167). For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.	3
CIT-282	<b>MS Windows Administration/Lab Network</b>	This course provides students with the necessary knowledge and hands-on skills required to manage the most current and industry-accepted version of Microsoft Windows. The course tailors information to requirements necessary to complete the Microsoft Certified Professional (MCP) exam required by industry. Topics include, but are not limited to, installation, managing users and groups, managing domains via an overview of the Active Directory Services feature, print services, disk storage, remote access, managing and monitoring the network, the Registry and troubleshooting techniques. Course labs challenge students to piece together new and old networking concepts that reinforce each topic. Prerequisite: Introduction to Networking (CIT162). Pre/corequisite: Windows Operating Systems (CIT268). For additional information and/or a course syllabus contact CITDdept@bhcc.mass.edu.	4

CIT-284	<b>Advanced C++/OOP</b>	This course covers intermediate-level programming. Students learn advanced topics of C++, dynamic memory, allocation, pointers, etc., and OOP, function and operator overloading, class design and object abstraction, ADT design, templates, inheritance and polymorphism. Students learn to analyze a variety of problems and generate appropriate object oriented solutions. The department recommends that students taking this course have no less than a grade of B in the prerequisite course. Prerequisite: C++ Programming (CIT237) and College Algebra STEM (MAT194) or permission of the department chairperson. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.	3
CIT-285	<b>Advanced Java Programming</b>	This course thoroughly examines many of the sophisticated features of the Java programming language, including interfaces, advanced graphics, some data structures, file I/O techniques, multithreading, advanced JDBC Servlets, and Java Server Pages. Students demonstrate their mastery of the material through a series of graded projects and examinations that challenge at an extremely high level. The course not only instructs in the preparation of applications and applets that focus on business-related topics, but also teaches JAVA in an internet-based, integrative environment that utilizes cross-platform tools. Prerequisites: Java Programming (CIT239) and Precalculus (MAT197).For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.	3
CIT-288	<b>Healthcare IT Concepts II</b>	Students will apply concepts from Healthcare IT objectives learned in the Healthcare IT Concepts I course for effective real-world application. Students will achieve the national Healthcare Technology Specialist competencies and the national Healthcare Information Management competencies. The course will prepare students to demonstrate proficiency in Healthcare IT workforce roles integral to the implementation and management of electronic health information systems. Students will demonstrate competencies in health IT professions to assess workflows, select hardware and software, work with vendors, install and test systems, diagnose IT problems, and train other staff on healthcare systems. Virtual labs and web-based stimulation will provide a practical understanding of the material. Prerequisite: Pre/co-requisite Healthcare IT Concepts I (CIT 183)or Permission of the Department Chair.	3
CIT-502	<b>IT Career Exploration</b>	This is a workshop class designed to provide students with the tools to evaluate their own career development and to explore strategies for securing employment in the Information Technology job market. During each module students will engage in activities and assignments designed to assess and to evaluate their values, skills, and interests as they relate to the world of work. Students will utilize online resources to explore individual careers, research employers and to navigate the local job market in the IT industry.	1

		This class is open to anyone with an interest in guided career exploration and a desire to be employed within the field of Information Technology.	
<b>CIT-531</b>	<b>Introduction to Big Data With R and R</b>	This course introduces the field of Big Data, its concepts and technologies, as well as R and R-Studio. The course will explore the question ? What is Big Data?? Students will explore the roles of a data scientist in terms of network architecture, data analytics and predictive analysis. Students will learn the six fundamental questions of data science and the scenarios appropriate for each. They will also learn various visualization techniques and best communication practices. Students will learn to differentiate between raw data, clean data, and tidy data; and utilize tools to convert data to/from these formats. Students will learn how to effectively and efficiently manage large data in single and distributed computing environments, including managing data redundancy and failures. Students will utilize basic tests to analyze large data sets, as well as the R programming software/language. Upon completion of this course, and the next Big Data course, Data Analytics and Predictive Analysis, students will be able to pass the EMC Data Science Analytics certificate, to become EMCDSA certified.	3
<b>CIT-532</b>	<b>Intro to Object Oriented Programming</b>	This is an introductory course in Object Oriented Programming (OOP) theory, logic and design. Taught in the Colleges hands-on computer classrooms, this introduces students to basic programming skills. Students will learn how to write sizeable programs of medium complexity. The course emphasizes the program design and development process including concepts of variables and flow control, objects, classes, methods, and polymorphism. Students will use an Object Oriented Programming language as they design code, debug and implement several programs covering the topics presented. Students taking this course are expected to have solid knowledge of basic computer terminology, internet navigation and email, operating system and file management skills. Strong analytical skills are recommended for students enrolling in this course. This course satisfies the Learning Community Seminar requirement but is not count for graduation credits for CS majors (AA CS, AS CS or OOP/D Certificate Students). Students in those majors should enroll in CIT-120. Prerequisites: College Algebra-STEM (MAT194), Writing Skills II (ENG095), and Reading Skills II (RDG095) or placement. For additional information and/or a course syllabus contact CITDepartment@bhcc.mass.edu.	4

CMT-101	<b>Game Development Essentials</b>	This course will present the principles, concepts, and components all of games and the gaming industry's processes, methodologies, and principles associated with the design, development, and distribution of computer-based games and computer-based simulations. This course is designed to provide the student with an overall comprehension of all the precepts and building blocks that are essential to every computer-based game and simulation. This course fulfills the Learning Community Seminar requirement for students in Computer Media Technology. Prerequisites: Writing Skills II (ENG095) and Reading Skills II (RDG095) or placement.	3
CMT-103	<b>Managing Game Development</b>	This course will cover the concepts and application of management tools and philosophies incorporated in today's game development climate for the purposes of effectively managing game production scenarios. The student will be introduced to the tasks associated with the development of a game or simulation projects and the constraints, effects, and ramifications affecting the project components. Additionally, the student will be taught critical project management analysis techniques such as resource allocation, estimating obstacles and opportunities and how to exploit them to the project's advantage. Prerequisites: Writing Skills II (ENG095) and Reading Skills II (RDG095).	3
CMT-111	<b>HTML &amp; Dreamweaver</b>	This course teaches the student the principles and concepts of designing and creating WEB pages in an HTML format. The course is designed to expose the student to the constructs of HTML tags, the attribute modification of HTML tags, the incorporation of CSS tags, CSS pseudo tags, dynamic effects using styles, and class assignments. Additionally, the course will teach the student the utilization of graphics and dynamic graphics used in Web design. Also included will be content presentation control via HTML tables, HTML layers, and HTML frames. The course will explore the requirements, tools and controls used in WEB page development by lecture, in-class practical exercises and home study exercises. The course will also teach the student to create WEB sites using Dreamweaver as a state-of-the-art web authoring tool to enable rapid deployment of WEB development projects.	3
CMT-113	<b>JavaScript</b>	This course teaches students the concepts and practical application of JavaScript programming language as a WEB authoring tool. Students learn to program WEB pages to perform such tasks as forms and form validation, image swapping, auto-scrolling text, browser detection and control and time and date extraction and conversion. The course explores designing and developing JavaScript functions using iteration loops, conditional statements, switch statements, parameter passing, location redirection, in-line JavaScript and remote access JavaScript utilization. Prerequisites: Computer Applications/Concepts (CIT110) and HTML & Dreamweaver (CMT111).	3

CMT-119	<b>The Human Character</b>	This course will present concepts in the creation of 3D human character and object modeling using detailed structures based on polygon modeling design tools such as patch modeling, image planes, planar projections, and curve projections. This course will also cover in-depth NURBS modeling of 3D characters and conversion from NURBS to polygonal. These skills are requisite skills for the successful design and implementation of 3D game design and computer simulation projects. Most of these techniques were employed in the Sony Pictures animated short film "The ChubbChubbs". Prerequisite: Game Development Essentials (CMT101).	3
CMT-121	<b>Maya Foundations</b>	This course will present the principles of designing gaming and computer simulation using the same Autodesk Maya techniques and principles as were used in the Sony Pictures feature film "Open Season". The course will cover the fundamentals of three dimensional (3D) object creation, 3D object shading, shape texturing, scene and object lighting, and simple animations. Prerequisite: Writing Skills II (ENG095) or placement and Academic Reading III (ESL098) or Reading Skills II (RDG095).	3
CMT-125	<b>Cascading Style Sheets</b>	This course will cover the incorporation of modern web design controls for the formatting, placement, dynamics, interactive functionality, and animation web page content with CSS. CSS is the primary technology in use today in the fast paced world of web design and is used to present web content in a standardized manner that far exceeds the capabilities of the HTML language. CSS is in use in almost every one of the millions of web pages published in today's world and is a multi-browser, multi-language coding technology. CSS is found at all levels of the web design process and lends itself being incorporated as an in-line component, and embedded component, and a remote component on every HTML, JavaScript, XML, ASP.net, PHP, and Ruby pages written. It is prevalent and used in IEE Explorer, Firefox, Mozilla, Safari, Opera, and Netscape browsers. CSS can be used to create amyriad of functions from the simple coloring of text content to the dynamics of drop-down expandable menus to the inclusion of voice content. It is a technology that has rapidly replaced the traditional name-pair attribute coding scheme of the previous web design technology. Corequisite HTML & Dreamweaver (CMT111).	3

<b>CMT-211</b>	<b>XSLT Extensible Stylesheet Transform</b>	This course is designed to add a new dimension to the students XML Web Design learning foundation by introducing them to the XSL style sheet and transformation language. XSL is a specialized formatting and manipulation that is uniquely applicable to the XML markup language which enables the developer of XML Web content to perform such tasks as contextual formatting, conditional selection of Web content from a data source, sorting of content on a Web page, dynamic counting, dynamic summarization, attribute processing, and creating dynamic document-wide numbering schemes. Prerequisites: HTML & Dreamweaver (CMT111) and XML (CMT117).	3
<b>CMT-217</b>	<b>3D Modeling &amp; Sculpting</b>	This course will teach the student the processes and techniques of modeling and sculpting 3D characters and objects using Autodesk Mudbox software. The student will be taught the skills required to create production-ready 3D digital artwork for the game, film, television, and design industries. The student will be taught how to paint directly onto high-resolution 3D models, paint multiple material channels, execute texture baking, create accurate normal, displacement, and ambient occlusion maps, render quality results directly in the viewport, and to employ seamless integration with other 3D software applications. Prerequisite: Maya Foundations (CMT121).	3
<b>CMT-223</b>	<b>Maya Character Animation</b>	This course will present advanced concepts in the creation of 3D character animation from simple joint movement to complete synchronized character movement. This course will also cover blend shaping, skinning techniques, joint constraints and their effect on skinning. These skills are requisite skills for the successful design and implementation of 3D game design and computer simulation projects. Most of these techniques were employed in the Sony Pictures animated short film The ChubbChubbs. Prerequisite: Maya Character Modeling (CMT123).	3
<b>CMT-229</b>	<b>Creating 3-D Special Effects</b>	This course will present advanced concepts in the creation and implementation of special effects, shadings, caustics, global illumination, mental ray rendering, and lighting, shadows and cameras. These skills are requisite skills for the successful design and implementation of 3D game design and computer simulation projects. Most of these techniques were employed in the Sony Pictures animated short film "The Chubb Chubbs". Prerequisite: Maya Foundations (CMT121).	3
<b>CMT-231</b>	<b>Mel Scripting in Maya</b>	The course will cover the process of using Maya Embedded Language to manipulate and animate characters, objects, and object interactions into a complete animation scenario. MEL scripting incorporates traditional programming constructs such as loops, conditionals, functions, expressions and nodes. In addition to traditional constructs this course will introduce specific animation and gaming constructs such as particle dynamics control, user input selection dialogs, solid body dynamics and crowd systems. Prerequisite: Creating 2-D Special Effects (CMT229).	3

<b>CMT-241</b>	<b>PHP/MySQL</b>	PHP/MySQL is a web development programming language that is used to provide dynamic interaction between web content pages and databases. PHP technology permits web developers to retrieve and maintain real-time information for presentation across the web delivery medium. The objectives of this course are to teach the student the skills required to effectively construct real-time web sites for the purposes of e-commerce and real-time information delivery. The student will learn how to design and publish web pages that interact with push/pull actions that interact directly with on-line databases. Prerequisites: HTML & Dreamweaver (CMT111) and SQL Programming (CIT236).	3
<b>CRJ-101</b>	<b>Introduction to Criminal Justice</b>	A survey of the history, development and the role of American Criminal Justice System are presented. Included are the organizations and jurisdictions of the various agencies, a review of the court process, professional orientation, and the current trends in the criminal justice system. The course will offer students the ability to use state of the art technology and interactive instruction. It stresses the application of knowledge learned to real-life situations. Ethical behavior issues will be raised and students will develop strategies to set boundaries, understand differences among people, develop professional codes of conduct and behavior, and develop a professional moral code of conduct. The course fulfills the Learning Community Seminar requirement for students in AS Criminal Justice. Prerequisites: Writing Skills II (ENG095), Academic Reading III (ESL098) or Reading Skills II (RDG095) or placement.	3
<b>CRJ-103</b>	<b>Criminal Law</b>	This course examines the substantive law of crimes including the general and social parts of criminal law; classification of crimes against persons, property, and the public welfare; nature of crime; criminal liability; elements of crimes; and jurisdiction. Through case studies, the course emphasizes matters affecting law enforcement. Prerequisites: Writing Skills II (ENG095), Academic Reading III (ESL098) or Reading Skills II (RDG095), or placement.	3
<b>CRJ-107</b>	<b>Introduction to Corrections</b>	This survey course covers the correctional process from arrest to probation or parole. The course provides students with an understanding of corrections as an essential component in the criminal justice system and gives an orientation to current correctional concepts and various correctional institutions. Prerequisites: Writing Skills II (ENG095), Academic Reading III (ESL098) or Reading Skills II (RDG095), or placement.	3

CRJ-117	<b>Street Law</b>	This is an introductory course in American law. The course will examine the origins of the American Legal System through an analysis of its function, sources and its varied aspects. This course introduces students to fundamental criminal law and constitutional law principles and provides a platform for guided discussions of important public policy issues concerning, crime, discrimination, healthcare, and immigration. The course uses the latest instructional technology including e-portfolios, case studies, simulated legal exercises, small group exercises and analytical thought problems to develop higher level thinking skills that prepare students for other course work in criminal justice, law, sociology, and history and government.	3
CRJ-201	<b>Management in Criminal Justice</b>	This course presents the principles of administration and management of criminal justice agencies. It examines organizational structure, responsibilities, and the interrelationships of administrative, line, and staff services in police, security, court, and correctional facilities. Prerequisites: A grade of C or better in College Writing I (ENG111), Introduction to Criminal Justice (CRJ101), Criminal Law (CRJ103), Criminal Investigation I (CRJ208) or instructor approval.	3
CRJ-202	<b>Evidence/Court Procedures</b>	This course covers rules of evidence in law enforcement procedures from investigations to courtroom hearings. It examines burden of proof, judicial notice, and admissibility of testimonial and documentary evidence, relevancy, materiality, and competency. The course analyzes state and federal court cases as well as trial techniques and presentation of evidence. Prerequisites: A grade of C or better in College Writing I(ENG111), Introduction to Criminal Justice (CRJ101), Criminal Law (CRJ103), Criminal Investigation I (CRJ208), or instructor approval.	3
CRJ-208	<b>Criminal Investigation I</b>	This course identifies and traces the significance and application of the tools of criminal investigation. It includes fundamentals and theory of an investigation, crime scene procedures, report writing, collection and preservation of evidence, methods of gathering information, and specialized and scientific methods. Prerequisite: Grade of C or better in College Writing I (ENG111), Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103) or instructor approval.	3
CRJ-210	<b>Cultural Issues American Crim Just Sys</b>	This course examines the impact of the policies, procedures, and interpretation of data concerning the American criminal justice system across ethnic, racial, sexual, and cultural lines. It examines cross-cultural interaction within the system and the history and institutional attitudes concerning multicultural issues. Prerequisites: a grade of C or better in College Writing I (ENG111), Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103) or instructor approval.	3

<b>CRJ-211</b>	<b>Criminal Procedure</b>	This course explores constitutional issues related to criminal justice. Students learn the Incorporation Doctrine and the views of Justices Black and Frankfurter concerning this doctrine. In addition, the course examines the nuances of search and seizure under the 4th Amendment, 5th Amendment self-incrimination issues, 6th Amendment right to counsel issues, as well as the use of informants and electronic interceptions. Prerequisites: a grade of C or better in College Writing I (ENG111), Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103) or instructor approval.	3
<b>CRJ-212</b>	<b>Community Corrections</b>	This survey course covers the history, development, trends, and role of the community-based correction program in the American criminal justice system. The course includes therapeutic, support, and supervision programs for offenders. It examines pretrial release, detention, and community services, as well as innovative programs. Students must make site visits. Prerequisites: Grade of C or better in College Writing I (ENG111) and Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103) or instructor approval.	3
<b>CRJ-220</b>	<b>Policing in a Democratic Society</b>	This course covers an introduction to the philosophy and techniques of contemporary policing including the history, traditions, and social developments that have resulted in the present system. The course emphasizes the effects of economics, social developments, and Supreme Court decisions on the evolution of the modern system. Discussion focuses on police accountability and the measurement of effectiveness of operations. The course traces the shift from technological policing to community and problem-solving policing. Prerequisites: Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103) or instructor approval.	3
<b>CRJ-228</b>	<b>Criminal Investigation II</b>	This course examines the types of analyses conducted on crime scene evidence, their value, and limitations. It covers the evidentiary value of the following types of evidence: glass, soil, hairs and fibers, firearms, tool marks, and questioned documents. This course also covers forensic concepts, methods of collecting samples, and the value of blood distribution patterns, bloodstains and other bodily fluids. Prerequisites: Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103) or instructor approval.	3
<b>CRJ-234</b>	<b>Ethics/Prof Responsibility in Cj System</b>	This course gives students an overview of the ethical dilemmas facing criminal justice professionals in American society. It aids students in the comprehension and retention of diverse ethical issues by analyzing the aspects of ethical behavior and decision-making in law enforcement, court procedure and operations, and corrections. Prerequisites: Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103) or instructor approval.	3

CRJ-245	<b>Cyber Crime in Today's Society</b>	This course will focus on the issues, trends and problems associated with crimes perpetrated over the Internet or other telecommunications networks. This course will discuss crimes ranging from embezzlement to auction fraud and social engineering to digital warfare and cyber terrorism. Investigative techniques and issues will also be presented. Prerequisites: a grade of C or better in College Writing I (ENG111), Introduction to Criminal Justice (CRJ101) and Criminal Law (CRJ103) or instructor approval.	3
CRJ-299	<b>Criminal Justice Internship</b>	Students work 150 hours in a criminal justice facility, probation department, juvenile detention center, or house of corrections, as assigned by the contract advisor. Students work under an assigned criminal justice professional, participate actively in the preparation of pre-sentence reports, and conduct intake and post conviction interviews. Students learn how to perform record checks and prepare probation recommendations, etc. Students work on inmate classification, work release programs, and in educational settings. Students may assist counselors and other staff, depending upon the type of facility to which the student is assigned. Through active participation in online functions of the criminal justice agency, students gain knowledge and understanding. The contract advisor and the assigned criminal justice official evaluate students' work. Students meet bi-weekly with their advisors to prepare papers and work on related projects. Students are responsible for following all guidelines in the BHCC Internship Handbook. Prerequisite: Permission of the instructor.	3
CTC-111	<b>Computed Tomography I</b>	This interactive, web-based course presents principles and physics on conventional as well as spiral/helical CT. It begins with descriptions of the hardware configurations, and progresses to include the computer science of the system, including digital image processing, data acquisition, display, and reconstruction methods. Technical factors affecting image quality, artifact, recognition and reduction, quality control and patient doses will be discussed. Multislice technology will have particular emphasis, and 3D applications, CT angiography, CT fluoroscopy and other advanced applications will be presented. Radiation safety, dosimetry and contrast agents will also be included in this course. Prerequisite: Acceptance into CT Certificate Program.	3

<b>CUL-101</b>	<b>Culinary Arts Seminar: If You Can't Stand the Heat</b>	This course introduces students to the challenges and responsibilities encountered by culinary arts students. It provides students with an in depth knowledge of the options available within the culinary arts industry. The course prepares students with skills necessary to prepare a resume, gain interview skills and become familiar with all of the resources that the college has to offer. Topics covered will include: preparing for a career in the food service field, resume preparation, career options and specific skills necessary to create a successful career, and discovering the best use of resources available to students at BHCC. For Culinary Arts students only.	3
<b>CUL-108</b>	<b>Basic Baking Skills</b>	This course will teach the fundamentals of bakeshop production. It will introduce the students to a variety of baking techniques and skills. Emphasis will be placed on the different skills needed for immediate employment in the pastry field. Students will be introduced to the math skills necessary to understand the weights and measures, as well as to comprehend conversion skills. Students will become competent in the basics of yeast bread production, quick breads, and basic dessert production. Additional expenses may include supplies, equipment, and/or uniforms.	4
<b>CUL-111</b>	<b>Food Service Sanitation and Skills</b>	Food Service Sanitation is an introduction to food production practices governed by changing federal and state regulations. Topics to be covered include prevention of food-borne illness through proper handling of potentially hazardous foods, HACCP procedures, legal guidelines, kitchen safety, facility sanitation, and guidelines for safe food preparation, storing, and reheating. Students will also take the National Restaurant Association ServSafe examination.	3
<b>CUL-113</b>	<b>How Baking Works: the Science of</b>	This course explores the theory and science of baking. Students will learn how different ingredients affect a baked product. Students will explore the changes that take place during the baking process, using recipes and formulas as experiments, and will discuss these outcomes. This course is taught in the bakeshop. Additional expenses may include supplies, equipment, and/or uniforms.	3
<b>CUL-115</b>	<b>Introduction to Culinary Arts</b>	This course introduces students to the theory behind cooking. The class covers the history of cuisine as well as the terminology, equipment use, cooking techniques, and ordering and receiving procedures. Course instruction emphasizes the techniques and skills needed to work in a commercial kitchen. The course introduces students to basic menu and food presentation. Students become proficient in the use of tools and equipment. Additional expenses may include supplies, equipment, and/or uniforms. Corequisite: Principles of Baking (CUL125). This course is for Culinary Arts students only or by permission of the department chairperson.	4

<b>CUL-116</b>	<b>Basic Culinary Skills</b>	This course will provide students with the knowledge in the use of tools, equipment, and knives while learning basic skills and procedures related to the preparation of food and cooking procedures. Students will become familiar with spices, and ingredients and learn basic menu construction and presentation used in a professional food service facility. The course is designed to emphasize proper terminology, equipment use, cooking techniques, use of commercial equipment as well as professional tools. Students will learn correct knife skills and become proficient in their knife skills. Additional expenses may include supplies, equipment, and/or uniforms.	4
<b>CUL-119</b>	<b>Cake Decorating</b>	This course takes the student through the basics of cake decorating. The students will refine their cake decorating skills. The course introduces the students to the techniques used to decorate tiered cakes, calligraphy, writing with chocolate and gels, as well as working with the different mediums used to decorate special occasion cakes. Students will learn the basic techniques used for royal icing, color flow and rolled fondant. Additional expenses may include supplies, equipment, and/or uniforms. This course is for Culinary Arts students only or by permission of the department chairperson.	3
<b>CUL-125</b>	<b>Principles of Baking</b>	This production lab course covers the fundamentals of baking. It introduces students to the methods and procedures for producing a variety of baked goods, including yeast products, quick-breads, general desserts and pastry products. Students follow a standard recipe, do basic conversions, and apply the foundations of math as they pertain to the food service industry. The course places emphasis on their knowledge of weights and measures. The course focuses on the bakeshop and receiving areas of the kitchen. Additional expenses may include supplies, equipment, and/or uniforms. Corequisite: Introduction to Culinary Arts (CUL115). This course is for Culinary Arts students only or by permission of the department chairperson.	4
<b>CUL-211</b>	<b>Menu Design and Purchasing</b>	This course introduces students to various menu types and costing of menu items. Students also learn the skills necessary to purchase all food items, properly receive and store those items, conduct yield tests and become familiar with the 'NAMP' guide and can-cutting procedures. The course emphasizes the math skills used to calculate food and beverage cost percentages. Prerequisites: Cafe and Bistro Cuisine (CUL135) and Advanced Desserts and Pastries (CUL145).	3

<b>CUL-215</b>	<b>Essentials of Food Production</b>	This course goes beyond the basics of food production. The course introduces students to production and service of menus involving all aspects of cooking techniques as well as skills needed to execute service properly. It introduces students to various cooking techniques in an actual restaurant setting with emphasis on the timing and skills necessary to perform these tasks. Faculty demonstrates food-garnishing techniques. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisites: Cafe and Bistro Cuisine (CUL135) and Advanced Desserts and Pastries (CUL145). Corequisite: Essentials of Dining Service (CUL225). This course is for Culinary Arts students only or by permission of the department chairperson.	4
<b>CUL-225</b>	<b>Essentials of Dining Service</b>	This course gives students a complete overview of the inner workings of the dining room. In this beginning phase of dining room service, using proper techniques, the course emphasizes the various types of service and the timing and execution of the meal. It introduces students to various service types, table settings, and food delivery systems. The course also covers all aspects of bar and beverage management, as well as preparation of guest checks, payroll, and tip credits. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisites: Cafe and Bistro Cuisine(CUL135) and Advanced Desserts and Pastries (CUL145). Corequisite: Essentials of Food Production (CUL215). This course is for Culinary Arts students only or by permission of the department chairperson.	4
<b>CUL-243</b>	<b>Hot and Cold Desserts</b>	This course is designed to introduce students to the production of chilled and frozen desserts. Students will also be introduced to the production of hot desserts, as well as to the production of desserts using both hot and cold components. Students will design menus for a bakeshop or pastry operation and develop an understanding of the various management tools required for the operation. Students will learn to analyze and forecast sales. An emphasis is placed on plating and garnishing techniques of dessert production. Students will also be introduced to molecular cooking techniques. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisite: Advanced Desserts (CUL145).	4
<b>CUL-249</b>	<b>Baking for Health</b>	This course will explore the options available for meeting the needs of the customer with dietary restrictions. The student will be introduced to lactose-free, gluten-free, and dairy-free, sugar-free baking. Students will also work with vegan recipes, as well as honey-free and egg-free recipes. Students will also be introduced to the production of pastries using substitute ingredients for health purposes. Healthy and low fat dessert alternative will be introduced. Additional expenses may include supplies, equipment, and/or uniforms. Prerequisite: Advanced Desserts (CUL145).	3

<b>ECE-101</b>	<b>Guidance and Discipline</b>	This course covers the study of effective communication in guiding behavior. The course emphasizes techniques that help children build positive self-concepts and individual strengths within the context of appropriate limits and discipline. Prerequisite: Child Growth/Development (ECE103).	3
<b>ECE-103</b>	<b>Child Growth and Development</b>	This course covers the normal development of children through the age of twelve with emphasis on the physical, cognitive, social, and emotional components of development of the infant, toddler, preschool and school age child. The course meets Department of Early Education and Care guidelines for child growth and development. Prerequisites: Grade of C or better in Academic Reading III (ESL098) and Academic Writing III (ESL099) or Reading Skills II (RDG095) and Writing Skills I (ENG090) or exemption from reading and writing requirements by placement testing.	3
<b>ECE-104</b>	<b>Curriculum in Early Childhood Education</b>	This course is the study of early childhood education programs with emphasis on curriculum development in areas such as art, music, science, literature, math, language arts, and dramatic play. Prerequisite: Child Growth/Development (ECE103).	3
<b>ECE-106</b>	<b>Program Environments</b>	This course covers the study of setting up and maintaining a program environment with emphasis on health and safety concerns, nutritional considerations, space utilization, equipment needs and material usage. Prerequisites: Grade of C or better in Academic Reading III (ESL098) and Academic Writing III (ESL099) or Reading Skills II (RDG095) and Writing Skills I (ENG090) or exemption from reading and writing requirements by placement testing.	3
<b>ECE-107</b>	<b>Literacy Development and Learning</b>	This course is a study of concept development and learning in early childhood education programs with emphasis on curriculum development in the area of literacy development for young children. Prerequisites: Child Growth/Development (ECE103) (or its equivalent) and Curriculum in Early Childhood Education (ECE104) or Child Growth/Development (ECE103) and Introduction and Foundations of Education (EDU101).	3
<b>ECE-108</b>	<b>Infant/Toddler Curriculum Development</b>	This course is the study of the aspects of planning and implementing group care for infants and toddlers, including developmental issues, routines and transitions in care-giving, curriculum activities, environmental designs, equipment and materials, guiding behavior including limit setting and developing security through behavioral management, and working with parents. The course meets Department of Early Education and Care requirements for Infant/Toddler Lead Teacher certification. Prerequisites: Child Growth/Development (ECE103) and a grade of C or better in Academic Reading III (ESL098) and Academic Writing III (ESL099) or Reading Skills II(RDG095) and Writing Skills I (ENG090) or exemption from reading and writing requirements by placement testing.	3

ECE-157	<b>What/How of Emergent Curriculum and the Project Approach of ECE</b>	Emergent curriculum and the project approach go beyond the traditional way of planning program activities and curriculum for young children in the classroom. Using the newest understandings to incorporate children's interests into program curriculum, this module examines the what's and how's of emergent curriculum. Recommended: Curriculum in Early Childhood Education (ECE104) prior to enrolling in course. Prerequisite: Grade of C or better in Child Growth and Development (ECE103) or equivalent.	1
ECE-158	<b>Project Planning Emergent</b>	Figuring out children's interests requires observation and reflection. Teachers must be attentive to what is happening around children and what they are excited by, frightened of, and curious about. Where to begin the project approach is all about the skills of observing the children around the classroom. Recommended: Curriculum in Early Childhood Education (ECE104) prior to enrolling in course. Prerequisite: Grade of C or better in Child Growth and Development (ECE103) or equivalent.	1
ECE-159	<b>Project Planning-Pushing Beyond Beginnings</b>	Considering how long a project should last is tricky. How to keep the children interested and how to end the project are also essential ingredients of a successful project. How does a classroom "document" the learning that children have obtained? Recommended: Curriculum in Early Childhood Education (ECE104) prior to enrolling in course. Prerequisite: Grade of C or better in Child Growth and Development (ECE103) or equivalent.	1
ECE-202	<b>Issues in Early Childhood Education</b>	(Formerly ECE102) This course is a study of early childhood education programs. The course includes the history of childcare, regulation, types of programs, and current trends and issues in early care and education. The needs of children and families and components of quality programs with emphasis on social, political, and economic influences on professional issues and career opportunities in the field are covered. Prerequisites: Grade of C or better in Academic Reading III (ESL098) and Academic Writing III (ESL099) or Reading Skills II (RDG095) and Writing Skills I (ENG090) or exemption from reading and writing requirements by placement testing.	3
ECE-207	<b>Literacy Development and Learning for Children</b>	(Formerly ECE107) This course is a study of concept development and learning in early childhood education programs with emphasis on curriculum development in the area of literacy development for young children. Prerequisites: Child Growth/Development (ECE103) (or its equivalent) and Curriculum in Early Childhood Education (ECE104) or Child Growth/Development (ECE103) and Introduction and Foundations of Education (EDU101).	3

<b>ECE-209</b>	<b>Math Concepts &amp; Learning for Children</b>	(Formerly ECE109) This course is a study of concept development and learning in early childhood education programs with emphasis on curriculum development in the area of math for young children. Prerequisite: Child Growth & Development (ECE103) (or its equivalent) and Curriculum in Early Childhood Education (ECE104) or Child Growth & Development (ECE103) and Introduction and Foundations of Education (EDU101).	3
<b>ECE-211</b>	<b>Young Children With Special Needs</b>	(Formerly ECE111) This course covers the study of children with physical, social, emotional and/or cognitive disabilities with emphasis on techniques for mainstreaming and inclusion of these children into existing early childhood programs. Prerequisites: Child Growth/Development (ECE103) plus three (3) ECE or EDU courses.	3
<b>ECE-212</b>	<b>Families/Community in Early Childhood Ed</b>	(Formerly ECE212) This course is the study of the relationship of parents and communities to early childhood programs. The course emphasizes parental needs for early care and education, parenting skills and need for communication with parents, challenges of dealing with diverse populations and multiple family structures using an anti-bias approach which respects diversity and encourages collaborative efforts in caring for children. Prerequisites: Child Growth/Development (ECE103) plus three (3) ECE or EDU courses.	3
<b>ECE-213</b>	<b>Child Care Administration I</b>	(Formerly ECE213) This course covers the study of program management in early childhood education, including planning, implementing, and evaluating programs. The course emphasizes financial, legal, personnel, and program aspects of program administration. It meets Department of Care and Education and Certification requirement. Prerequisite: Lead teacher qualifications or permission of department chair prior to enrollment.	3
<b>ECE-217</b>	<b>Observation/ Recording Behavior</b>	(Formerly ECE117) This course is the study of observing and recording behavior of children with emphasis on child study in all areas of development using a variety of observational tools and recording techniques with children from birth to age twelve. Prerequisite: Child Growth/Development (ECE103).	3

<b>ECE-223</b>	<b>CDA Professional Portfolio</b>	The Child Development Association National Credentialing Program (CDA) will assist each student in developing their reflective Professional Portfolio as it relates to the 13 functional areas required by CDA and specific to the early childhood program in which the student is employed (family child care, infant/toddler or preschool care). This course is designed to expand the scope and level of each student's work capability as they develop their competency in these 13 functional areas. Each area will require the development of evidence to show competency through the preparation of a portfolio used for earning their CDA credential. Students will be eligible to apply for the CDA credential once completing all the requirements of the Council on Professional Recognition. Note: An application and credentialing fee is required by the council and will be the student's responsibility. For information about the CDA process visit the CDA website at <a href="http://www.cdacouncil.org">www.cdacouncil.org</a> . Prerequisites: Admission to the Early Childhood Development Certificate with Child Development Associate Credential and ECE101, 103, 104, 106, and ENG111 plus a Learning Community Seminar. (These are the course requirements for completion of the Early Childhood Development Certificate).	3
<b>ECE-224</b>	<b>CDA Mentoring and Coaching Practicum</b>	This course will allow students to gain work experience to be used toward completion of requirements for the CDA (The Child Development Associate National Credentialing Program). The course follows the requirements for the CDA, allowing for 180 hours of work experience, observed by a faculty advisor who will provide coaching and mentoring feedback based on the 13 functional areas of the CDA comprehensive scoring instrument. Students will be eligible to apply for the CDA credential once completing all the requirements of the Council on Professional Recognition. Note: An application and credentialing fee is required by the Council and will be the student's responsibility. For information about the CDA process visit the CDA website at <a href="http://www.cdacouncil.org">www.cdacouncil.org</a> Prerequisite: ECE223 with a grade of B or better or concurrently with Department Chair permission.	3
<b>ECO-201</b>	<b>Macroeconomics</b>	This course covers an introduction to the American economy. Topics include: scarcity, opportunity cost and the production possibility curve, unemployment, inflation, GDP and related aggregates, economic growth, classical Keynesian models of income and employment determination, government policies for full employment and price stability, and money and the banking system. The course meets General Education "World View" Requirement Area 3. Prerequisites: Foundations of Algebra (MAT097) and Reading Skills II (RDG095) or placement.	3

ECO-202	Microeconomics	This course covers an introduction to the market system. It covers basic demand and supply analysis, theory of consumer choice, demand and supply elasticity, long run and short run cost curves, and price and output determination under different market structures, such as perfect competition, monopoly and monopolistic competition. The course applies microeconomic principles for analyzing government regulations. The course meets General Education "World View" Requirement Area 3. Prerequisites: Foundations of Algebra (MAT097) and Reading Skills II (RDG095) or placement.	3
EDU-102	<b>Becoming a Teacher: a Learning Community Seminar</b>	This learning community seminar is designed for education majors who are interested in making a difference in today's public schools. The seminar will focus on the pressing issues in today's public schools: overcrowding, lack of funding, outdated curriculum, classroom chaos, and shortage of good teachers, and many others. The Learning Community Seminars enable first-year students to make successful transitions to college while developing their abilities to reflect and assess; discover their strengths; explore career interests; set goals and problem solve with critical thinking, information literacy and communication skills; and connect with peers, faculty and staff in a diverse learning environment. This seminar will focus on education as students grow in their understanding of themselves and the world of education. While recommended for Education majors, those in Early Childhood Development, and Human Services will find the material useful. Students from other majors are welcome to enroll if interested in pursuing teaching as a career in the future. Prerequisite: Student must be in first two semesters of study at BHCC with 16 college credits or less completed.	3
EDU-201	<b>Introduction &amp; Foundations of Education</b>	(Formerly EDU101) This course is designed for students interested in entering the teaching profession with children K-12. Principles, history, philosophy, functions of the school, policies and current trends are included. Field experiences in area schools are required. The course is best suited for AA Education majors, but others are welcome to enroll. Prerequisites: Grade of C or better in Writing Skills II (ENG095) and Reading Skills II (RDG095) or exemption by placement testing.	3

<b>EDU-220</b>	<b>Practicum in Instruction</b>	(Formerly EDU140) This course exposes students to various techniques of learning through the experience of tutoring. Faculty develops supervised tutoring placements in specified subject areas. The placements may be in the classroom, computer lab, Tutoring and Academic Support Center, the Center for Self-Directed Learning, and/or other areas on campus. Students must participate in a weekly on-campus seminar, in addition to two hours of tutoring per credit, per week. The seminar relates the field experience to students' objectives through discussions of learning styles, modes of instruction, cross-cultural awareness, tutoring techniques, and study habits. Students gain experience in tutoring, the evaluation process, and management of instructional operations. Prerequisites: Introduction & Foundations of Education (EDU201).	3
<b>EMS-205</b>	<b>Principles of Paramedicine I</b>	This course is the first of nine courses designed for Emergency Medical Technicians, Basic or Advanced, with at least one year of experience desiring to obtain Paramedic Certification/Licensure. Areas of study will include, Introduction to Advanced Pre-hospital Care, Well Being of the Paramedic, EMS Systems, Roles and Responsibilities, Illness and Injury Prevention, Stress Management, Anatomy & Physiology, Documentation, Communications, Therapeutic Communications, Medical/Legal Aspects and Ethical Considerations, Basic and Advanced Airway Management & Ventilation, Wave Form Caponography, Patient Assessment, Trauma & Medical Physical Exam Techniques, Obstetric & Gynecological Emergencies, Pathophysiology of Shock and Intravenous Access and Mathematics for Medications. Students will demonstrate knowledge and perform manipulative skills under the supervision of the course instructor, program director, medical director, and/or skilled preceptor. The student must demonstrate and maintain current licensure/certification as an Emergency Medical Technician (EMT). Adherence to the attendance policy and a minimum final course grade of B- must be achieved in order to advance in the program. Prerequisites: Human Biology/Lab (BIO108) or equivalent and College Writing I (ENG111). Co-Requisite: Paramedic Clinical Rotation I (EMS209).	10
<b>EMT-103</b>	<b>Emergency Medical Technician</b>	This course covers the rendering of emergency care to the sick and injured promptly and efficiently. It conforms to the EMT-B national standard curriculum, as adopted by the Commonwealth of Massachusetts, and is a prerequisite for taking the state EMT Exam. Students are responsible for taking the certification examination for EMT. Additional expenses may include supplies, equipment, and/or uniforms.	7
<b>ENG-005</b>	<b>IP Completion</b>	This course provides an organized, scheduled opportunity for students to satisfy the requirements of the IP Contract in English. Individualized support is provided through small group lectures and tutorial assistance. The original instructor is responsible for changing	0

		any grades. This course does not remain on transcript. Prerequisite: IP contract in English or permission of the instructor	
<b>ENG-090</b>	<b>Writing Skills I</b>	The first part of a two-semester basic writing sequence, this course develops writing skills needed to begin work in the College Writing program. The course places primary emphasis on the development of good sentence writing skills through frequent practice. Such practice may take the form of writing journals, paragraphs, and short essays. Faculty provide attention to difficulties with grammar, punctuation, and spelling primarily on an individual basis. The course does not satisfy any part of the College Writing requirement for graduation. Placement is determined by assessment testing or faculty referral. Upon completion of Writing Skills I (ENG090) with a grade of C or better, students enroll in Writing Skills II (ENG095).	3
<b>ENG-095</b>	<b>Writing Skills II</b>	This course develops language skills needed to communicate effectively in college study, in the professions, and in the business world. The course includes sentence formation, applied grammar, spelling, mechanics, and paragraph development. Note: Students must pass the Basic Writing Competency Exam in order to receive a passing grade for this course. The course does not satisfy the college writing requirement for graduation. Prerequisite: Grade of C or better in Writing Skills I (ENG090) or placement.	3
<b>ENG-111</b>	<b>College Writing I</b>	This course emphasizes writing as a process, from planning and drafting through revising and editing. Using personal experience, readings, and other sources, students write unified, coherent, well-developed essays and practice paraphrasing, summarizing, and using sources responsibly. To be eligible to take College Writing II (ENG112), students must pass the College Writing Exam and earn a grade of C or better for this course. The course meets General Education "College Writing" Requirement Area 1. Prerequisite: Grade of C or better in Writing Skills II (ENG095) and Academic Reading III (ESL098) or Reading Skills II (RDG095) or placement.	3
<b>ENG-112</b>	<b>College Writing II</b>	This course focuses on the research paper, the longer essay, argumentation, critical writing, and reading. The course meets General Education College Writing Requirement Area 1. Prerequisite: Grade of C or better in College Writing I (ENG111).	3
<b>ENG-115</b>	<b>Writing Tutor Seminar</b>	This course prepares skilled writing students to work as peer tutors in the college's Writing Place. It provides advanced instruction in grammar and composition, with special emphasis on the writing process. Through the weekly seminar and tutoring sessions, students develop teaching strategies, problem-solving skills, and greater understanding of composition theory and practice. Prerequisite: Permission of the instructor.	3
<b>ENG-171</b>	<b>Oral Communication</b>	This course develops students' pose and self-confidence through oral expression. The course emphasizes presentation of individual talks and participation in class discussions.	3

<b>ENG-203</b>	<b>Creative Writing Workshop</b>	This course introduces students to the writing of poetry, short stories, plays, and autobiographies. The course includes some model readings, but the main work is student writings in all four genres. Prerequisite: Writing Skills II (ENG095) or placement in College Writing I (ENG111).	3
<b>ENG-241</b>	<b>Journalism I</b>	This course combines class discussions of journalistic principles with practice in writing news stories. The course then shifts emphasis to field work for a newspaper. In this phase, students follow news leads, evaluate them, compose better ones, and check copy for accuracy and clarity. The course encourages students to proofread, edit, sell ads, and lay out final copy for the printer. Prerequisite: Writing Skills II (ENG095).	3
<b>ENG-503</b>	<b>Fiction Writing Workshop</b>	This course emphasizes writing as a process, from planning and drafting through revising and editing. Using personal experience, readings, and other sources, students write unified, coherent, well-developed essays and practice paraphrasing, summarizing, and using sources responsibly. To be eligible to take College Writing II (ENG112), students must pass the College Writing Exam and earn a grade of C or better for this course. The course meets General Education "College Writing" Requirement Area 1. Prerequisite: Grade of C or better in Writing Skills II (ENG095) and Academic Reading III (ESL098) or Reading Skills II (RDG095) or placement.	3
<b>ENR-101</b>	<b>Introduction to Engineering/Lab</b>	This course provides an overview of the engineering profession. Topics to be discussed include fields of study within engineering; the engineering profession, including engineering ethics; and engineering design and problem-solving. Emphasis is on team-building and teamwork approach to engineering projects. Course meets 3 hrs. lecture - 3 hrs. lab. Pre/co-requisite: Grade of C or better in College Algebra for STEM (MAT194).	4
<b>ENR-260</b>	<b>Engineering Statics</b>	This course will apply the laws of Newtonian mechanics to help students attain the basic engineering science concepts that serve as the building block for further courses in engineering analysis and design. The course applies the equations of mechanics to the general engineering sciences, including solid, fluid mechanics, and materials, thereby contributing to the success of students as practicing engineers after graduation. Course meets: 3 hour lecture. Prerequisite: Grade of C or better in College Physics I/Lab (PHY251). Pre/co-requisite: Grade of C or better in Calculus II (MAT282).	3

<b>ENR-265</b>	<b>Engineering Dynamics</b>	The course covers Kinematics and Kinetics of particles and rigid bodies, with the application of Newton's Second Law and the principles of work-energy and impulse. The course enables students to distinguish statics problems from dynamics problems and to identify inertial effects. The course also enables students who are interested in Engineering Mechanics or related disciplines to comprehend the vast applications of the principles of dynamics ranging from structural design of vehicles, electro-mechanical devices such as motors and movable tools, biomedical devices such as artificial heart and bladder, to predictions of the motions of satellites, spacecraft, etc. Course meets 3 hours lecture. Prerequisite: Grade of C or better in Engineering Statics (ENR260). Corequisite: Ordinary Differential Equations (MAT285).	3
<b>ENV-105</b>	<b>Environmental Science I/Lab</b>	This course covers an introduction to the physical and biological structure of the natural environment within a global perspective. The course emphasizes both a local and global perspective on the study of natural systems and the impacts of human society on these systems. Topics include: ecosystem dynamics, international conservation biology, biodiversity, evolution and adaptation, population dynamics, climate, and the role of science and technology in business and society, and sustaining ecosystems and wildlife. Laboratory investigations develop critical thinking and formal report writing skills. The department recommends this course for A.S. degree students as the General Education "Science and Technology" Requirement Area 5. Course meets 3 hrs. lecture; 1.5 hrs. lab. Prerequisites: Writing Skills II (ENG095), a grade of C or better in Foundations of Mathematics (MAT093), and Reading Skills II (RDG095) or placement.	4
<b>ENV-106</b>	<b>Environmental Science II/Lab</b>	This course examines the global and local impact of human culture upon the natural systems. Students investigate both destructive and constructive elements of human action within the natural environment. Also, students learn the role of science and technology in the environment and society. Topics include: air and water pollution; toxicity; ozone depletion; global warming; hazardous waste; the role of science and technology in business and society; and renewable and nonrenewable energy resources. Laboratory investigations develop students' critical thinking skills and formal report writing skills. Course meets 3 hrs. lecture; 1.5 hrs. lab. Prerequisites: Writing Skills II (ENG095), a grade of C or better in Fundamentals of Math (MAT091) or placement and Academic Reading III (ESL098) or Reading Skills II (RDG095), or placement.	4

ENV-110	<b>Sustainability Resource Conservation</b>	This course is an introduction to fundamental concepts of sustainability and resource conservation as related to environmental policy and environmental management. Through lectures, laboratories, and dialogue, students develop literacy in sustainability topics including environmental values and ethics; natural resource economics; environmental policies and regulations; sustainability management; sustainable development; ecosystem resources and management, biodiversity and wildlife conservation; forest and soil conservation, water conservation and quality, air quality, climate change and climate action planning. This course meets the General Education Requirement Area 5. Course meets 3 hours lecture; 1.5 hours lab. Prerequisites: Writing Skills II (ENG095), Foundations of Math (MAT093), and Reading Skills II (RDG095) or placement.	4
ENV-111	<b>Survey of Renewable Energy</b>	This course investigates the potential of renewable energy technologies to help solve environmental and economic problems within society. Areas of investigation include solar energy, wind power, hydropower, geothermal, fuel cells, biomass, ocean wave power, and alternative transportation options. Also addressed are conventional energy sources including oil, coal, natural gas and nuclear energy. Consideration will be given to related issues such as costs, externalities, system efficiencies, emissions and other environmental impacts, financing incentives, and the regulatory and market forces impacting the alternative energy industry. Students will learn how to assess the viability of incorporating renewable technology, such as solar or wind power, for residential and commercial applications. Course meets 3 hours lecture; 1.5 hours lab. This course meets General Education "Science and Technology" Area 5 requirement. Prerequisites: Foundations of Mathematics (MAT093), Writing Skills II (ENG095), Reading Skills II (RDG095) or placement equivalency.	4
ENV-113	<b>Introduction to Oceanography/Lab</b>	This course ingrates the physical, chemical, geological, and biological characteristics of the world's oceans with emphasis on the New England coast and Boston Harbor. Topics include plate tectonics and evolution of ocean basins, ocean sediments, coastal processes and landforms, physical and chemical properties of sea-water, atmospheric and oceanic circulation, the origins and dynamics of waves and tides, the coastal ocean, marine life, ocean productivity and resources, marine environmental concerns, marine policies and cutting-edge marine technologies. Laboratory activities offer hands-on experiences about real-world oceanographic issues using oceanographic materials and techniques in both the laboratory and the field. Course meets 2.5 hours lecture; 1.5 hours lab. Prerequisites: Writing Skills II (ENG095), Foundations of Mathematics (MAT093), and Reading Skills II (RDG095) or placement.	4

<b>ENV-115</b>	<b>Earth Science</b>	A study of the materials, principles, and processes that define and govern the Earth system. This course covers the fundamentals of geology: rocks, minerals, the rock cycle, geologic time, plate tectonics, earthquakes, volcanoes, geologic structures, weathering and erosion, hydrologic cycle, groundwater, glaciers and geologic hazards. Laboratory activities include mineral and rock identification, geologic structure and landform identification, interpretation of geologic maps and cross-sections, field geology, and other fundamentals topics. Prerequisites: Writing Skills II (ENG0995), a grade of C or better in Foundations of Mathematics (MAT093), and Reading Skills II (RDG095) or placement.	4
<b>EPU-101</b>	<b>DC Circuit Theory &amp; Lab</b>	This course provides an introduction to the nature of electricity in general, in-depth coverage of direct current electrical theory and laboratory practices. Topics covered include static electricity, the Bohr Atom, Ohm's Law, Kirchhoff's Law, network theorems, and magnetism. Course meets: 3 hrs. lecture: 3 hrs. lab. Pre/corequisite: Topics of Algebra/Trigonometry (MAT193) or may be taken concurrently.	4
<b>EPU-151</b>	<b>Fund of Single Phase &amp; Polyphase Metering</b>	This course introduces students to the fundamentals of Single Phase & Polyphase Metering, such as terminology and basic principles of meters. Students review basic math specific to metering, and gain knowledge of basic electricity and magnetism principles. Students will be introduced to meter testing equipment, meter diagrams and standards, and learn technical data and how to read watt-hour and demand meter schematics. They will also learn about power factor analyzers, high amperage current transformer cabinets, meter demand theory and demand registers. Students are introduced to various instrument transformers, their design, application and troubleshooting. They learn about high voltage metering equipment and how to safely install the equipment. In addition all students will learn how to connect electrical secondary services up to 600 volts from the pole to the house working off a ladder. Prerequisite: Admittance into the Electric Power Utility Program.	4

<b>EPU-203</b>	<b>Intro to Underground Operations</b>	This course introduces students to the basic operation of underground systems. Through classroom instruction and extensive hands-on experience, students will become familiar with the underground network electrical system and the various job responsibilities of underground personnel. Students will learn how to use the power formula to determine wire sizes. Correct manhole entry/exit procedures will be demonstrated. Underground safety issues including emergency rescue procedures will be covered. The sizing, installing and splicing of underground cables will be taught. An equipment orientation will be performed to provide students with a basic understanding of all underground apparatus. (Note: This course covers many of the same topics as EPU153, Underground and Substation Operations, but in greater detail and with more depth and hands-on practice.) Prerequisite: Acceptance into Electric Power Utility Program General Worker Option.	4
<b>EPU-257</b>	<b>Power and Distribution Systems</b>	This course introduces the basic concepts of electrical power systems. Subject areas include on electrical power generation, transmission, and distribution. Distribution system layout, distribution transformers, transmission line fault calculations and transmission line protection will also be covered. Prerequisite: AC Circuit Theory (EPU104).	3
<b>ESL-074</b>	<b>Listening Comprehension &amp; Discussions</b>	In this low-intermediate course students develop academic listening skills and participate in small group and whole class discussions based on articles, lectures, and multi-media sources. Students will learn grammar and vocabulary in the context of the materials used for listening, speaking, reading, and writing activities. Students must earn a C or better in order to pass the course. Prerequisite: Placement into ESL level I.	3
<b>ESL-075</b>	<b>Grammar Structures &amp; Editing</b>	This low-intermediate course focuses on improving grammar and editing skills through weekly grammar lessons, writing assignments, class discussions and assessments. Students will develop their ability to compose grammatically correct and comprehensible sentences and short writings. Students receive individual feedback that targets their needs. Students must earn a C or better in order to pass the course. Prerequisite: Placement into ESL Level I.	3
<b>ESL-078</b>	<b>Academic Reading I</b>	In this low-intermediate course, students learn pre-reading skills, organizational styles, academic vocabulary, dictionary use, referents, critical reading, basic verb tenses and parts of speech, and how to summarize, paraphrase, and identify main ideas and supporting details. Students will learn to complete homework assignments in basic MLA format. Students must earn a C or better in order to pass the course. Prerequisite: Placement into ESL Level I.	3

ESL-079	<b>Academic Writing I</b>	In this low-intermediate course, students learn to write paragraphs and short essays through an academic writing process in a variety of rhetorical styles using basic MLA format. Student will write from personal experience and respond to reading by paraphrasing and quoting. Students will learn to write different sentence types, using coordinators and subordinators. Punctuation and grammar will be taught, and students will apply their knowledge by revising and editing their papers. Students must pass the ESL079 Writing Competency Exam and earn a C or better in order to pass the course. Prerequisite: Placement into ESL Level I.	3
ESL-083	<b>Pronunciation for Academic and Professional Success</b>	This course for non-native speakers of English focuses on the pronunciation, rhythm and intonation of the English language to enable clearer, more effective, and native-like pronunciation in English. The course is designed for students who have a least intermediate fluency in English, but who require considerable accent reduction for academic and professional purposes. Students may be required to complete assignments in the Language Lab. Prerequisites: placement in Academic ESL Level I or higher.	3
ESL-085	<b>Intermediate Grammar &amp; Editing</b>	This course is an integrated skills course for intermediate ESL students and focuses on improving grammar and editing skills. Instruction focuses on clauses and sentence variety in paragraphs and essays. Students receive individual feedback that targets their needs. Students must earn a C or better in order to pass the course. Prerequisite: a grade of C or better in ESL075 or placement.	3
ESL-086	<b>Academic Listening &amp; Note-Taking</b>	This high-intermediate course focuses on listening and note-taking skills. Students develop a system for note-taking and learn how to use their notes to answer comprehension questions as well as to complete writing assignments. All listening and note-taking activities include reading and writing exercises. Students learn grammar in the context of the materials used for listening activities and student generated writing. Students must earn a C or better in order to pass the course. Prerequisites: Grade of C or better in ESL074, ESL075, ESL078, and ESL079, or placement.	3
ESL-087	<b>Contemporary Issues &amp; Conversations</b>	In this high-intermediate course, students practice and demonstrate effective speaking functions in small-group and whole-class discussions of academic reading materials. Students develop a method for delivering an oral presentation to a large group. All speaking activities are organized around reading and writing exercises. Students learn grammar and build their level-appropriate academic vocabulary in the context of speaking, in the context of the reading materials, and in the context of student generated writing. Students must earn a C or better in order to pass the course. Prerequisites: Grade of C or better in ESL074, ESL075, ESL078, and ESL079, or placement.	3

ESL-088	<b>Academic Reading II</b>	In this high-intermediate course, students increase their level-appropriate vocabulary and develop their reading skills and strategies as they analyze, discuss, and write about longer readings. Students are also introduced to critical thinking skills such as drawing inferences, understanding idioms and figures of speech, and recognizing purpose and perspective. Students learn grammar in the context of the reading materials and in student generated writing. Students must earn a C or better in order to pass the course. Prerequisites: Grade of C or better in ESL074, ESL075, ESL078, and ESL079, or placement.	3
ESL-089	<b>Academic Writing II</b>	In this high intermediate course, students develop their writing skills with a focus on the process of college writing from planning and drafting to revising and editing. Students demonstrate their critical thinking skills by writing paragraphs and essays from their personal experience and from readings of moderate complexity. Students practice correct grammar and mechanics in the context of the readings and their own writing. Students must pass the ESL089 Writing Competency Exam and earn a grade of C or better in order to pass the course. Students must earn a C or better in order to pass the course. Prerequisites: Grade of C or better in ESL074, ESL075, ESL078, and ESL079, or placement.	3
ESL-095	<b>Advanced Grammar &amp; Editing</b>	This course is for advanced ESL students and focuses on improving and refining grammar and editing skills. Students review points covered in lower-level grammar courses and further develop their ability to compose grammatically correct and comprehensible sentences, paragraphs, and essays. Topics include various clause types, conditionals, indirect speech, passive voice, and perfect modals. Students receive individual feedback that targets their needs. Students must earn a C or better in order to pass the course. Prerequisite: Grade of C or better in ESL085 or placement.	3
ESL-096	<b>Lecture Comprehension &amp; Academic Vocabulary</b>	In this advanced course, students develop an academic note-taking system as they listen to lectures and authentic sources. Students practice using their notes to answer comprehension questions, write summaries of sources, and compose responses to critical thinking questions. Students learn advanced academic vocabulary and grammar in the context of advanced level readings, websites, and lectures. Students must earn a C or better in order to pass the course. Prerequisites: Grade of C or better in ESL086, ESL087, ESL088, and ESL089 or placement.	3

<b>ESL-097</b>	<b>Academic Discussions &amp; Presentations</b>	This advanced course focuses on the communication skills necessary in an academic setting. Students develop and improve a method for delivering an oral presentation to a large group using effective delivery, visual aids, secondary sources, and level-appropriate academic vocabulary. Students practice comprehensible pronunciation along with stress and intonation patterns. All speaking activities are organized around academic reading materials which students will write about and discuss in small groups. Students must earn a C or better in order to pass the course. Prerequisites: Grade of C or better in ESL086, ESL087, ESL088, and ESL089 or placement.	3
<b>ESL-098</b>	<b>Academic Reading III</b>	This advanced course focuses on the critical and analytical reading skills necessary for success with college level materials. Students demonstrate comprehension of level-appropriate readings through class discussions, writing assignments, and other assessments. Students also develop critical (higher order) thinking skills by interacting with the readings and by summarizing, paraphrasing, quoting, responding to, and evaluating readings. Students do extensive work on understanding and analyzing main ideas and supporting details of articles and essays. Students learn grammar and academic vocabulary in the context of the reading materials. Students must earn a C or better in order to pass the course. Prerequisites: Grade of C or better in ESL086, ESL087, ESL088, and ESL089, or placement.	3
<b>ESL-099</b>	<b>Academic Writing III</b>	This advanced course focuses on the academic writing skills necessary for success in college content courses. Students develop their abilities with sentence structure, paragraph writing, and essay writing through extensive practice with multiple drafting, revising, editing, and proofreading. Students write from personal experience, answer essay questions from readings of substantial complexity, and write essays using research sources. Students learn grammar in the context of the readings and student generated writing. Students must pass the ESL099 Writing Competency Exam and earn a C or better in order to pass the course. Prerequisites: Grade of C or better in ESL086, ESL087, ESL088, and ESL089 or placement.	3

ESM-105	<b>Green Buildings</b>	This course provides a framework for making practical design and construction decisions that are environmentally responsible by focusing LEED (Leadership in Energy and Environmental Design) building standards. After completing the course, students will have the ability to sit for the LEED Green Associate Exam. Topics include trends in green building, costs and benefits of green buildings, third party certifications and rating systems, site selection and orientation, sustainable landscapes, storm water management, water efficiency, energy demand, energy efficiency, renewable energy in buildings, ongoing building performance, waste management, building materials and indoor air quality. Prerequisites: Foundations of Mathematics (MAT093), Writing Skills II (ENG095), Reading Skills II (RDG095), or placement equivalency.	3
ESM-115	<b>Sustainable Facilities Management</b>	This course highlights the responsibilities, policies, and practices involved with managing the built environment to achieve sustainable goals. Students will gain an understanding of facilities operation, maintenance, architectural blueprint interpretation, health & safety awareness, and occupant engagement. Students will learn how to select and assess energy usage of HVAC systems, electrical systems, lighting systems, and heating systems. Course content will center on facilities management as a process, and its relationship to other functions within an organizational setting. Students will explore the most current strategies and issues in the industry today, including sustainability, productivity, green buildings, as well as human and environmental factors. This course will utilize a combination of classroom techniques (presentation, discussion, team projects, case studies, and guest speakers) to give the students a full understanding of the issues and complexities of sustainable facilities management. Prerequisites: Foundations of Mathematics (MAT093), Reading Skills II (RDG095), and Writing Skills II (ENG095) or placement.	3
ESM-211	<b>Project Management and Finance for Energy</b>	This course examines the theory and practice of Project Management as applied to renewable energy and energy efficiency projects. The course also explores financial considerations for sustainable energy projects, as well as a variety of funding mechanisms. Special focus will be applied to project life-cycles, planning, controlling, and coordinating efforts of multiple individuals and/or working groups. Students will gain an understanding of financial measures of project performance, budgeting, feasibility, and explore various funding mechanisms including government incentives, specialized loans, and performance contracts through case studies. Prerequisite: Survey of Renewable Energy/Lab (ENV111).	3

<b>ESM-299</b>	<b>Energy &amp; Sustainability Internship</b>	This course provides relevant field and/or research experience integrating theory and practice while providing opportunities to develop skills, explore career options, and network with professionals and employers in the clean energy and sustainability management fields. Prerequisites: Enrollment in the Energy and Sustainability Management Program, have completed a minimum of 10 credits in ESM courses with a B average or higher, or approval of EMS program directors. Students who do not meet attendance standards for the ESM program may not be eligible to participate in the internship.	3
<b>FIN-106</b>	<b>Introduction to Corporate Finance</b>	This course is an introduction to corporate finance. The objective of the course is to introduce concepts and techniques of finance. This course will provide an introduction to present value techniques, capital budgeting principles, asset valuation, the operation and efficiency of financial markets, the financial decisions of firms, and international finance. This course is open to all majors.	3
<b>FIN-111</b>	<b>Investments</b>	Students will be introduced to the dynamic world of investing by evaluating strategies endorsed by many of the pioneers within the investment industry. A major objective of the course will be to analyze techniques to successfully manage risk and achieve high returns. An in-depth examination of key economic reports will enable students to prepare a balanced portfolio of investments. Students will be exposed to the following investment vehicles; cash equivalents, bonds, mutual funds, stocks, real estate, and leveraging with options and futures. Prerequisite: Principles of Accounting II (ACC102).	3
<b>FIN-112</b>	<b>Personal Finance</b>	An overview of personal financial planning, this course covers the following topics: the intelligent use of consumer credit, budgets, banking, the time value of money, investments, insurance, retirement, and other long-term planning and their tax ramifications. It is intended for students at all levels and for all programs of study.	3
<b>FIN-210</b>	<b>Financial Management</b>	This course uses the tools of financial analysis such as ratios, budgets, forecasting techniques, present value concepts, and cash flow. The course also explores short, intermediate, and long-term sources and uses of cash. Prerequisite: Principles of Accounting II (ACC102).	3
<b>FIN-211</b>	<b>Money and Banking</b>	This course covers an economic analysis of financial institutions and markets in the world economy. It covers institutional and economic factors in the determination of the money supply. The course includes the commercial banking system and the money and capital markets. Current policy issues are debated. Prerequisites: Macroeconomics (ECO201) and Microeconomics (ECO202).	3
<b>FLM-101</b>	<b>Film As Art</b>	This course covers film techniques, terminology, and criticism, using a variety of recent popular films on television and videotape as the subjects for discussion and analysis. This course meets General Education "Humanities" Requirement Area 6. Pre/co-requisite: College Writing I (ENG111).	3

<b>FLM-102</b>	<b>American Cinema</b>	This course brings Hollywood film making into clear focus as an art form, as an economic force, and as a system of representation and communication. The course probes the deeper meaning of American movies through encounters with the works of famous directors such as John Ford, Howard Hawks, and Martin Scorsese. This course meets General Education Requirement Humanities Area 6. Pre/corequisite: College Writing I (ENG111).	3
<b>FPS-107</b>	<b>Fire Company Officership</b>	This course examines the scope and functions of the fire company officer. Topics include the role of the fire service, departmental organization, administrative and management procedures, training, public relations, tactics and strategy, and fire prevention.	3
<b>FPS-111</b>	<b>Fire Service, This Century and the Next, What Should We Expect?</b>	This course provides the student with the history of the fire service and its culture. The student will research the ways that the fire service has changed over the past century and how it is expected to change in the next century. Topics will include the history for the fire service, changes in the fire service past and future, the evolution of equipment in the fire service, firefighter deaths and statistics as they pertain to the National Fallen Firefighters Foundation and its 16 Firefighter Life Safety Initiatives, as well as a field trip to the NFPA (National Fire Protection Association) and the role of the state training centers and a field trip to the Massachusetts Firefighting Academy in Stow, MA. These topics will be discussed with particular focus on the National Fire Administration's Fire and Emergency Services Higher Education (FESHE) Professional Development Model and its explanation of how education, training, experience and individual development is needed for a successful job in the fire service. This course incorporates the learning outcomes of BHCC's Learning Community Seminar and fulfills the Seminar's requirements for first-time, college students.	3
<b>FPS-123</b>	<b>Principles of Emergency Services</b>	This course provides an overview to fire protection and emergency services; career opportunities in fire protection and related fields; culture and history of emergency services; fire loss analysis; organization and function of public and private fire protection services; fire departments as part of local government; laws and regulations affecting the fire service; fire service nomenclature; specific fire protection functions; basic fire chemistry and physics; introduction to fire protection systems; introduction to fire strategy and tactics; life safety initiatives. Prerequisites: A grade of C or better in Writing Skills II (ENG095) and Academic Reading III (ESL098) or Reading Skills II (RDG095) or exemption by placement testing.	3

<b>FPS-133</b>	<b>Fire Protection Systems</b>	This course provides information relating to the features of design and operation of fire alarm systems, water-based fire suppression systems, special hazard fire suppression systems, water supply for fire protection and portable fire extinguishers. Prerequisites: A grade of C or better in Writing Skills II (ENG095) and Academic Reading III (ESL098) or Reading Skills II (RDG095) or exemption by placement testing.	3
<b>FPS-135</b>	<b>Fire Behavior and Combustion</b>	This course explores the theories and fundamentals of how and why fires start, spread, and are controlled. Prerequisites: A grade of C or better in Writing Skills II (ENG095) and Academic Reading III (ESL098) or Reading Skills II (RDG095) or exemption by placement testing.	3
<b>FPS-139</b>	<b>Fire Prevention Services Safety and Survival</b>	This course provides fundamental knowledge relating to the field of fire prevention. Topics include: history and philosophy of fire prevention; organization and operation of a fire prevention bureau; use and application of codes and standards; plans review; fire inspections; fire and line safety education; and fire investigation Prerequisites: A grade of C or better in Writing Skills II (ENG095) and Academic Reading III (ESL098) or Writing Skills II (RDG095).	3
<b>FPS-223</b>	<b>Building Construction for Fire Protection</b>	This course provides the components of building construction related to firefighter and life safety. The elements of construction and design of structures are show to be key factors when inspecting buildings, preplanning fire operations, and operating at emergencies. Prerequisites: A grade of C or better in Writing Skills II (ENG095) and Academic Reading III (ESL098) or Reading Skills II (RDG095) or exemption by placement testing and Principles of Emergency Services (FPS123) or instructor approval.	3
<b>FRE-101</b>	<b>Elementary French I</b>	This course introduces students to the sounds and structures of French with emphasis on the acquisition of a limited but useful vocabulary and is offered for students with little or no previous knowledge of French. The course is not intended for native speakers or for students who have studied this language within the last three years.	3
<b>FRE-102</b>	<b>Elementary French II</b>	This course covers a continuation of Elementary French I (FRE101) and places emphasis on speaking and reading skills. The course meets General Education "Humanities" Requirement Area 6. Prerequisite: Elementary French I (FRE101) or one year of high school French.	3
<b>FRE-201</b>	<b>Intermediate French I</b>	This course is a review of basic language skills with emphasis on conversational skills and graded reading selections for the acquisition of a broad, active vocabulary. Prerequisite: Elementary French II (FRE102) or two years of high school French.	3
<b>FRE-202</b>	<b>Intermediate French II</b>	This course is a continuation of Intermediate French I with emphasis on self-expression through speaking and writing. Prerequisite: Intermediate French I (FRE201) or three years of high school French.	3

<b>GEO-101</b>	<b>World Regional Geography</b>	This course examines the geographical context of major social, cultural, economic, and political issues in selected regions of the world and develops a mastery of maps and other graphic aids as means of learning and communication. Major regional emphases vary from semester to semester among areas of Eastern Europe, the former USSR, the Middle East, the Orient, Latin America, and Africa. The course meets "World View" General Education Requirement Area 3. Prerequisites: Grade of C or better in Academic Reading III (ESL098) or Reading Skills II (RDG095); and Writing Skills II (ENG095); or exemption by placement testing.	3
<b>GER-101</b>	<b>Elementary German I</b>	This course teaches students to read, speak, and write elementary German including mastery of approximately five hundred basic vocabulary words. The course covers the basic structure of the language. The course is offered in alternate years.	3
<b>GER-102</b>	<b>Elementary German II</b>	This course builds upon the skills learned in Elementary German I (GER101) by advancing the language structures, word forms, and vocabulary. The course meets General Education "Humanities" Requirement Area 6. Prerequisite: Elementary German I (GER101). This course is offered in alternate years.	3
<b>GIS-124</b>	<b>Intro to Geographic Information Systems</b>	Geographic Information Systems (GIS) are a powerful way to access, map, and analyze geographic information. This course provides an introduction to the concepts of GIS and geospatial analysis of databases. Through a series of lectures, hands-on computer based exercises, and web enhanced modules, students will learn how to use Microsoft Excel to manage database information, analyze geospatial data, and create maps using GIS tools and software. This course is designed as a core requirement for the A.S. Environmental Science program but can also be used as a stand-alone course to compliment a wide range of academic disciplines to map resources and other mapping related functions of planning and management. This course can serve as a feeder course into a full GIS Certificate program. This course will be offered as an online course and as a face-to-face course. Course meets 2.5 hours lecture; 1.5 hours lab. Prerequisites: Writing Skills II (RDG095) or Academic Reading III (ESL098) or exemption by placement.	4
<b>GOV-101</b>	<b>Government/Politics in US</b>	The course explores some questions and theories that interest political scientists and historians, and methods they use to explain governmental operations. Insight into the nature of political ideals, as embodied in the Constitution, is developed. Topics include federalism, organization and functions of the three branches of the national government, civil liberties and civil rights, public opinion and voting behavior, the media, bureaucracies, and public policy. This course meets General Education "Individual and Society" Requirement Area 2. Prerequisites: Grade of C or better in Academic Reading III (ESL098) or Reading Skills II (RDG095); and Writing Skills II (ENG095); or exemption by placement testing.	3

<b>GOV-103</b>	<b>State/Local Politics</b>	This course acquaints students with the history and functions of state and local governance. It includes an analysis of political organization and structure; state and local government taxing powers; economic, educational, and police powers; and public service functions of government. The course meets General Education "Individual and Society" Requirement Area 2. Prerequisites: Grade of C or better in Academic Reading III (ESL098) or Reading Skills II (RDG095) and Writing Skills II (ENG095); or exemption by placement testing.	3
<b>GOV-211</b>	<b>Comparative Governments</b>	This course will discuss governments and politics in a global setting. Students will consider political and social institutions in a variety of countries and then analyze issues of power and economic development in the context of globalization. Prerequisite: at least 9 college-level credits.	3
<b>HIS-101</b>	<b>Western Civilization to the Renaissance</b>	This course covers a multi-disciplinary survey of the evolution of Western civilization from its roots in ancient world through the medieval and early modern periods. It examines artistic, ideological, economic, social, and political questions in order to assist students to understand the development of modern Western culture. This course meets the General Education World View Area 3 requirement. Prerequisites: Grade of C or better in Academic Reading III (ESL098) and Academic Writing III (ESL099) or Reading Skills II (RDG095) and Writing Skills II (ENG095); or exemption by placement testing.	3
<b>HIS-102</b>	<b>Western Civilization from the Renaissance</b>	This course covers a survey of the major intellectual, social, economic, and political developments in Western civilization since the 17th century. It emphasizes the roots of contemporary institutional and ideological problems. The course meets General Education World View Requirement Area 3. Prerequisites: Grade of C or better in Academic Reading III (ESL098) and Academic Writing III (ESL099) or Reading Skills II (RDG095) and Writing Skills II (ENG095); or exemption by placement testing.	3
<b>HIS-111</b>	<b>World Civilization to 1500</b>	This course examines similarities and differences among the major world civilizations before the modern era. Topics include traditions of governance, art, religion and philosophy, technology, family structure, and everyday life. The course meets General Education "World View" Requirement Area 3. Prerequisites: Grade of C or better in Academic Reading III (ESL098) or Reading Skills II (RDG095) and Writing Skills II (ENG095), or exemption by placement testing.	3
<b>HIS-112</b>	<b>World Civilization From 1500</b>	This course examines similarities and differences among the major world civilizations in the modern era. Topics include traditions of governance, art, religion and philosophy, technology, family structure and everyday life. The course meets General Education "World View" Requirement Area 3. Prerequisites: Grade of C or better in Academic Reading III (ESL098) and Academic Writing III (ESL099) or Reading Skills II (RDG095) and Writing Skills II (ENG095), or exemption by placement testing.	3

<b>HIS-117</b>	<b>Women in U.S. History</b>	This class will explore women's roles in American history. It will provide a chronology of the role chattel to citizens cultural phenomenon including gender identity, economics, government and law, and mass media will be examined in relation to their impact on women. This course will provide students with valuable insight into the women's movement and provide them with a working definition of feminism and its goal. Prerequisites: Grade of C or better in Academic Reading III (ESL098) or Reading Skills II (RDG095) and Writing Skills II (ENG095) or placement equivalencies.	3
<b>HIS-151</b>	<b>US History: Colonization through the Civil War</b>	This course traces the growth and development of America from colonial beginnings to the Civil War. The course devotes major attention to the people, critical issues, and significant forces that determined the course of events that shaped our civilization. The course meets General Education "World View" Requirement Area 3. Prerequisites: Grade of C or better in Academic Reading III (ESL098) or Reading Skills II (RDG095), and Writing Skills II (ENG095) or exemption by placement testing.	3
<b>HIS-152</b>	<b>US History: Reconstruction to the Present</b>	This course covers the rise of the United States from the turmoil of the Civil War to superpower status. The course examines the cultural, economic, diplomatic, and political forces that have given the nation its shape. The course meets General Education "World View" Requirement Area 3. Prerequisites: Grade of C or better in Academic Reading III (ESL098) or Reading Skills II (RDG095) and Writing Skills II (ENG095); or exemption by placement testing.	3
<b>HON-200</b>	<b>Honors Seminar</b>	This interdisciplinary seminar treats a selected theme through perspectives available from the humanities, social, and natural sciences. Presenters and topics differ each semester depending on current student interests and faculty availability. The course is required for all students enrolled in the honors program. Students who are not enrolled in the honors program may be admitted with permission of the instructor. The course meets General Education "Humanities" Requirement Area 6.	3
<b>HRT-105</b>	<b>Hospitality Seminar</b>	This course provides students with an in depth, experiential understanding of the options available within the hospitality industry. Topics covered include industry specific areas such as hotels, resorts, cruises, tours, convention and visitors bureaus and travel agencies with particular focus on the skills and abilities that each individual needs to create a successful career. Guest speakers and site visits are an integral part of this course.	3

<b>HRT-109</b>	<b>Hospitality Marketing Management</b>	This course examines the market environment in which a firm operates. The course covers communications principles and their application to sales goals. It considers effective utilization of tools and techniques of merchandising in hotels and restaurants. Prerequisite: Principles of Management and Service in Hospitality (HRT121).	3
<b>HRT-112</b>	<b>Food &amp; Beverage for Hospitality Prof</b>	This course covers the operations of dining and lounge services as they relate to the tasks of effective use of dining space, job assignments, and labor cost control. The course also covers these elements in relationship with optimum staffing, scheduling and productivity analysis. In addition, students discuss and practice issues in training, supervision, and quality guest services. A special emphasis is placed on brand recognition, company philosophy, marketing, sales, and beginning hospitality accounting to include basic financial statements.	3
<b>HRT-117</b>	<b>Hospitality Law</b>	This course examines the common and statutory law of the hospitality and tourism industry. The legal aspects of hotel and restaurant operations, employment law, tort liability, civil rights law and American with Disabilities Act compliance are also addressed. Prerequisite: Principles of Management and Service in Hospitality (HRT121).	3
<b>HRT-119</b>	<b>Basics of Meeting Management</b>	This course covers applied knowledge and skill that students need to plan professional meetings and conferences. The course takes students through the step-by-step process that exposes them to the decisions, problems, and concerns of planning effective meetings and programs that constitute a professional conference. The class format requires students to undertake a team project based on a variety of typical professional specifications.	3
<b>HRT-121</b>	<b>Principles of Management and Service in Hospitality</b>	The course introduces the principles of sound business management focusing specifically on the unique needs of service industries. Students will understand the business structures and strategies used in hospitality. Particular focus will be paid to communication skills, managing people and insuring quality service within the hospitality and travel industries.	3
<b>HRT-122</b>	<b>Managing Groups</b>	This course introduces students to group sales, support and tour management. Students will learn the skills necessary to handle the management of large groups of people over different modes of travel and to different destinations. Prerequisite: Basics of Meeting Management (HRT119).	3

<b>HRT-125</b>	<b>Prin of Hospitality Finance &amp; Accounting</b>	This course encompasses basic accounting principles within the unique context of the hotel industry and financial management strategies of tourism based businesses. Emphasis is placed on how to administer accounting procedures to minimize cost and maintain a full range of customer services. Topics include: cash flow cycle, accounting principles and procedures, elements of financial statements, maintaining financial statements, and analysis of financial records. Prerequisite: Principles of Accounting I (ACC101).	3
<b>HRT-131</b>	<b>Front Office Operations</b>	This course covers the responsibilities of management including principles of front-office procedures, accounting fundamentals and supervisory and communication skills as they relate to the various support departments that impact the guest cycle. It includes training on front desk software.	3
<b>HRT-133</b>	<b>Culinary Theory in Hospitality</b>	Students gain knowledge in the use of tools and equipment while learning basic procedures related to preparation and cooking. Students learn basic menu construction and presentation used in the development of full menus utilized in a quantity food production facility. The course emphasizes cooking techniques, terminology, equipment use, and commercial kitchen operation, as well as proficiencies in knife skills and uses of various culinary tools. Additional expenses may include supplies, equipment, and/or uniforms.	3
<b>HRT-151</b>	<b>Casino Operations Management</b>	This course provides the student with an overview of the Casino Industry. It covers forms of gaming, gambling, destinations, and organization of a Casino Resort. The course offers students insight into the various career paths available within this unique and thriving industry.	3
<b>HSV-101</b>	<b>Intro Human Services W/Field Practice</b>	This introductory course covers the historical aspects of human services, the requirements and skills of the human services worker, administration and funding of agencies, and the dynamics of work in the profession with a 15 contact hour (per semester) service learning requirement at a human service organization. Prerequisites: Grade of C or better in Academic Reading III (ESL098) and Academic Writing III (ESL099) or Reading Skills II (RDG095) and Writing Skills I (ENG090), or exemption from reading and writing requirements by placement testing.	3
<b>HSV-112</b>	<b>Addiction</b>	This course investigates the biological, psychological, and emotional forces involved in the addiction process. The course covers the major classes of psychoactive drugs by examining drug action, uses, and limitation. Social problems and the role of human services in prevention and intervention play an integral role in the course. Prerequisite: Principles of Psychology (PSY101).	3
<b>HSV-214</b>	<b>Ethics in Human Services</b>	This course provides students with the knowledge and skills required to identify ethical issues and to resolve ethical dilemmas when confronted with conflicting duties and choices that occur within the context of professional human service work at all levels of practice. Prerequisites: College Writing I (ENG111), Intro Human Services	3

		w/Field Practice (HSV101) and Addiction (HSV112).	
<b>HSV-218</b>	<b>Case Management in Human Services</b>	This is an introductory course on case management that uses the framework of the strengths-based model in working with different populations. Through an integration of classroom lecture and discussion with experiential learning activities, key issues will be explored and examined in-depth. Prerequisite: Counseling (PSY215) and grade of C or better in Academic Reading III (ESL098) or Reading Skills II (RDG095) and Writing Skills II (ENG095) or exemption from reading and writing requirements by placement testing.	3
<b>HSV-220</b>	<b>Practicum in Human Services I</b>	Practicum experiences in a human services setting to be completed the final semesters of study, including the 90-hour training in the national Family Development Credentialing program. Course runs during fall, spring, and early summer semester and must be started in the fall semester. The department assigns placement settings. Students must make application for placement and enrollment spring semester prior to fall registration. Acceptance into the human services program does not assure permission to enroll in the course or a placement assignment. A Criminal Offense Records Investigation (CORI) is required of all practicum students. For complete course requirements and application procedures, contact the department chair of Early Childhood, Education & Human Services. Course is graded on a pass/fail scale. HSV120, 121, and 122 are to be taken in sequence beginning in the fall semester and concluding in the first term of the summer semester. Prerequisite: Permission of department chairperson.	3
<b>INT-101</b>	<b>Introduction to Yoga Studies</b>	This course explores yoga, a diverse form of artistic human expression through an interdisciplinary perspective—from its origins to present day therapeutic applications for the mind, body and spirit. Students will also examine multi-cultural beliefs on healing and healing traditions. Through writing assignments students will reflect critically on their own practice and on topics introduced in the readings/discussions. The course will include an in-class yoga practice that will allow students to integrate course concepts with their yoga practice "on and off the mat" as students will apply yogic principles to their lives through self-reflection, civic engagement and service. This course is geared to students with no prior yoga experience. Students need to wear clothing that allows for freedom of movement as there will be a physical practice in each class meeting. Prerequisites: Grade of C or better in Academic Reading III (ESL 098) or Reading Skills II (RDG095) and Writing Skills II (ENG 095) or exemption by placement testing.	3

<b>INT-110</b>	<b>American Culture</b>	This interdisciplinary course focuses on the historical evolution of American beliefs and values and is designed for students from other cultures. Students study the way these values have shaped U.S. contemporary institutions such as education, business, the government, and the family. The course examines extensive cross-cultural comparisons with the students' native cultures. Materials include film, music, and short works of literature. The course meets General Education "Humanities" Requirement Area 6. Prerequisite: Academic Reading III (ESL098) or Reading Skills II (RDG095) or exemption from reading requirement by placement testing.	3
<b>ITL-101</b>	<b>Elementary Italian I</b>	This course introduces students to the sounds and structures of Italian with emphasis on the acquisition of a limited but practical vocabulary and is designed for students with little or no previous knowledge of Italian.	3
<b>JPN-101</b>	<b>Elementary Japanese</b>	This course is an introduction to the sounds and structures of the Japanese language with emphasis on the acquisition of a limited but useful vocabulary. The course is designed for students who want to learn essential Japanese as quickly and as effectively as possible. Students read and write with Hiragana and look into the world of Kanji. This course is not intended for native speakers or students who have studied this language within the last three years.	3
<b>JPN-102</b>	<b>Elementary Japanese II</b>	This course covers a continuation of the study of basic structures of the Japanese language. The course stresses additional useful vocabulary through reading, writing, and conversation. The course covers material that allows students to learn essential Japanese as quickly and effectively as possible. The course emphasizes encouraging and helping students obtain the ability to use the Japanese language in practical situations. It emphasizes student ease in interacting and communicating in an uncomplicated but adult language. Students read Kana and some basic Kanji. The course meets General Education Humanities Requirement Area 6. Prerequisite: Elementary Japanese I (JPN101).	3
<b>LCS-101</b>	<b>Learning Community Seminar for First Year Students</b>	The Learning Community Seminar enables first-year students to make a successful transition to college. The seminar develops students' abilities to reflect and assess; discover their strengths; explore career interests; set goals and problem solve; connect with peers, faculty and staff; develop critical thinking, information literacy and communication skills; collaborate in active, diverse learning environments; and make connections between classroom learning and the larger community. Each Learning Community Seminar explores a different topic. Students may choose a Seminar based on their program of study or general interests.	3

<b>LIT-201</b>	<b>Introduction to Literature</b>	This course develops students' ability to interpret, analyze, evaluate, and respond to ideas about literature. Students explore the nature, structure, and form of poetry, short story, and drama. The course meets General Education Humanities Requirement Area 6. Pre/corequisite: College Writing I (ENG111).	3
<b>LIT-203</b>	<b>Literature in America I</b>	This course traces the physical, moral, and psychological development of an emerging nation through its literature. The course examines themes of sin, guilt, justice, and equality in the historical movement of the nation from colonial settlement to westward expansion. The course includes works representative of the ethnic and racial diversity of American culture. The course meets General Education "Humanities" Requirement Area 6. Pre/corequisite: College Writing I (ENG111).	3
<b>LIT-204</b>	<b>Literature in America II</b>	This course analyzes the crises of the nation from the Civil War through the twentieth century, as shown through its literature. The course examines the themes of progress, materialism, alienation, and corruption against the yardstick of opportunity, heroism, and individualism, which represent the traditional American dream. The course includes works representative of the ethnic and racial diversity of American culture. The course meets General Education "Humanities" Requirement Area 6. Pre/corequisite: College Writing I (ENG111).	3
<b>LIT-207</b>	<b>Literature and Society I</b>	This course explores the role of literature as a mirror of the values and conflicts of a changing society. It also examines stereotypes associated with minorities and illustrates the role of literature in alerting society to social and moral injustice. The course meets General Education Humanities Requirement Area 6. Pre/corequisite: College Writing I (ENG111).	3
<b>LIT-211</b>	<b>Masterpieces of World Literature I</b>	This course considers the landmarks of literature, from ancient times to the eighteenth century, which have shaped, reflected or criticized Western thought. The faculty select readings from Homer, Greek Drama, the Bible, Dante, Medieval Romance, and Shakespeare. Faculty may couple these readings with their contemporary versions or transformations by such twentieth century writers as Sartre, O'Neill, MacLeish, Stoppard, and Joyce. The list may vary. The course meets General Education "Humanities" Requirement Area 6. Pre/corequisite: College Writing I (ENG111).	3
<b>LIT-212</b>	<b>Masterpieces of World Literature II</b>	This course continues the examination of the great works of the humanist tradition. Faculty select readings from the eighteenth century to the twentieth century from Moliere, Swift, Voltaire, Chekhov, Ibsen, Tolstoy, Conrad, Turgenev, Zola, Kafka, Singer, Bellow, Mishima, Orwell, and Eliot. The list may vary. The course also includes an international studies module of the contemporary literature of Africa, Asia, and Latin America. The course meets General Education "Humanities" Requirement Area 6. Pre/corequisite: College Writing I (ENG111).	3

LIT-217	<b>Children's Literature I</b>	This course introduces students to children's literature in all its forms, from fables to fairy tales, from realistic fiction to fantasy, from nonsense to narrative poetry. The course covers works both classic and contemporary. The course meets General Education "Humanities" Requirement Area 6. Pre/corequisite: College Writing I (ENG111).	3
LIT-219	<b>African Literature</b>	This survey course of contemporary African literature exposes students to the diversity of the themes, styles and modes of expression peculiar to the enormous continent of Africa. Students study the oral tradition as it is reflected in folktales, stories, and poems. In addition to reading essays and articles about social and historical conditions that affect the literature of the continent, students read numerous short stories and at least three novels, each reflecting the culture of a different region of the continent. The course meets General Education "Humanities" Requirement Area 6. Pre/co-requisite: College Writing I (ENG111).	3
LIT-227	<b>African-American Literature</b>	This course is an introduction to the study of African American literature from slave narratives to classic twentieth century novels to contemporary poetry and short stories. The course meets General Education "Humanities" Requirement Area 6. Pre/co-requisite: College Writing I (ENG111).	3
LIT-229	<b>Sophocles &amp; Shakespeare</b>	Through an exploration of plays by Sophocles and Shakespeare and critical readings based on the plays, the course will focus on themes that include prophecy and free will; speaking the truth to power; defining evil; and, finally, confronting evil. This is an Honors course, which counts as an Honors requirement for students in the Commonwealth Honors Program. Prerequisite: College Writing I(ENG111) with a grade of B or better or permission of the instructor.	3
LIT-231	<b>Mystery and Detective Fiction</b>	The course will introduce students to the art and mystery and detective fiction, surveying the short story and novel form from its Edgar Allen Poe roots through contemporary developments in the genre. It will include works by well-known mystery writers such as Arthur Conan Doyle, Raymond Chandler, Agatha Christie, Sara Paretsky and Walter Mosely as well as literary authors whose work shares elements of the mystery genre. The course meets General Education "Humanities" Requirement Area 6. Pre/Corequisite: College Writing I.	3
LIT-523	<b>Supernatural &amp; Horror Literature</b>	This course will analyze short and long works that deal with a variety of aspects of the supernatural. Students will read both classic and contemporary works by authors such as Bram Stoker, Robert Bloch, Ira Levin, Mary Wollstonecraft Shelly, Henry James, Edgar Allen Poe, Stephen King, Shirley Jackson and H.P. Lovecraft. The course explores the metaphorical role that belief in and interest about the supernatural play in our culture and in our lives. The course meets General Education "Humanities" Requirement Area 6. Pre/co-requisite: College Writing I (ENG111).	3

<b>MAC-111</b>	<b>Mammography Principles I</b>	This interactive, web-based course presents the concepts of equipment design, technical factors and compares analog to digital mammography equipment and techniques. Quality assurance and special patient situations, as well as interventional procedures will also be discussed. Prerequisite: Acceptance into Mammography Certificate Program.	3
<b>MAN-105</b>	<b>Principles of Marketing</b>	This course is a study of the basic principles of marketing and the application of these principles in today's changing competitive environment. The focus of this course is on the behavior of the consumer market and the product, pricing, promotion and distribution decisions employed to create consumer satisfaction. Prerequisites: Academic Reading III (ESL098) or Reading Skills II (RDG095) or placement and Writing Skills I (ENG090) or placement.	3
<b>MAN-106</b>	<b>International Marketing</b>	This course covers the study of marketing strategies adapted to fit the special requirements of international marketing structures, as well as the differing cultural, political, and legal environments. Students examine the marketing forces that play an important role in deciding the feasibility of internationalizing a product. Prerequisite: Principles of Marketing (MAN105).	3
<b>MAN-107</b>	<b>Introduction to Entrepreneurship</b>	This is an introductory course for those interested in starting or running their own business. Students will assess how technology and innovation, demographics, economics and social changes create business opportunities. Students will evaluate the feasibility of business ideas based on strengths, weaknesses, financial goals and competitive threats. Students will also identify desirable characteristics of leading entrepreneurs to identify skills and behaviors which lead to success? Prerequisites: Writing Skills II (ENG095), Academic Reading III (ESL098) or Reading Skills II (RDG095) or placements.	3
<b>MAN-111</b>	<b>Principles of Management</b>	The skills and functions, theories and principles of management are studied in respect to the socio-cultural environment within which a firm operates. An emphasis on decision-making, organizational strategy, planning and system design provides a framework for examining the application of management concepts in the modern business world and the evaluation of organization problems and issues. Prerequisites: Introduction to Business (BUS101) for Business Concentration, Management and Finance options only. A grade of C or better in Academic Reading III (ESL098) and Academic Writing III (ESL099) or Reading Skills II (RDG095) and Writing Skills I (ENG090) or exemption from reading or writing requirements by placement testing.	3

<b>MAN-112</b>	<b>Organizational Behavior/Design</b>	Organizational behavior and design, social systems and contemporary management issues are explored, experienced with an emphasis on interrelationship of culture, organizational structure and policies upon individual, group and organizational performance. Topic coverage includes: leadership styles; learning; motivation; group structure; decision-making; group dynamics and problem solving. Concepts and issues of power, conflict, change and organizational processes that impact interpersonal or social settings, group interactions or the workplace environment are examined. This course meets General Education Individual/Society Requirement Area 2 for A.A. and A.S. Business Administration students except for the A.S. International Business option.	3
<b>MAN-201</b>	<b>Management Seminar</b>	Engaged in diagnosing business issues and managerial problems posed through actual real life case studies, students conduct strategic analysis in a variety of individual and competitive situations. Teams identify strategic issues; propose workable plans of action; explain, present and defend their assessments; where applicable, drawing upon prior course study/life experiences and library and Internet research to convert a sound industry/business analysis into a sound, realistic, action agenda supported by evidence. Note: This course is a Capstone course and should be taken in the student's final semester. Prerequisite: Principles of Management (MAN111) and Principles of Marketing (MAN105).	3
<b>MAN-207</b>	<b>Small Business Management</b>	Starting and managing a small business requires strong leadership capabilities and unique business and management skills. The purpose of this course is to introduce students to the issues small business owners must understand to become a successful start-up or to manage an existing business successfully. This practitioner oriented course focuses on helping students understand their leadership capabilities and to compare their capabilities with the necessary requirements. Students will prepare a business plan to help understand the importance of effective planning and conduct a field study that involves surveying successful small business owners to understand how these owners successfully manage their businesses will also be requirements of the course? Prerequisite: Principles of Accounting II (ACC102) or Accounting Information Systems (ACC105); Principles of Management (MAN111); Principles of Marketing (MAN105) or permission of instructor.	3
<b>MAN-213</b>	<b>Mutual Fund Industry</b>	This course introduces the myriad aspects of the mutual fund business including the way mutual funds are structured, regulated, marketed, and distributed. In addition, the course explores shareholder serving systems and technology. Prerequisites: Principles of Accounting II (ACC102) and Investments (ACC111).	3

<b>MAN-217</b>	<b>E-Commerce Marketing Management</b>	This course provides an overview of the way E-Commerce is conducted, marketed, and managed, and describes its major opportunities, limitations, issues, and risks. e-Commerce is an interdisciplinary topic and, therefore, is of interest to managers and professional people in any functional area of the business world. The course describes the manner in which transactions take place over networks, mostly the Internet. The course covers descriptions and discussions of the process of electronically buying and selling goods, services, and information. It introduces specific applications, such as buying and selling stocks or books on the Internet, which are growing at a rate of several hundred percent a year. Prerequisite: Principles of Marketing (MAN105).	3
<b>MAT-093</b>	<b>Foundations of Mathematics</b>	Topics include solving applied problems with whole numbers, decimals and fractions; ratios and proportions; rates; percentages and applications in sales tax, interest, commissions, and discounts; determining numerical averages and medians; exponents and square roots; measurement; and geometry. Technology is incorporated to facilitate problem solving. This course does not satisfy degree requirements. Course requires an additional lab hour. Upon completion of this course with a grade of C or better, students enroll in Foundations of Algebra (MAT097).	3
<b>MAT-097</b>	<b>Foundations of Algebra</b>	This course is a continuation of Foundations of Math (MAT093). Topics include algebraic expressions, solving and graphing linear equations and inequalities, exponents and scientific notation, introduction to polynomials, and systems of linear equations and their graphs. Technology is incorporated to facilitate problem solving. This course does not satisfy degree requirements. Prerequisite: Grade of C or better in Foundations of Mathematics (MAT093) or placement. Course may require an additional lab hour.	3
<b>MAT-099</b>	<b>Intermediate Algebra</b>	This course is a continuation of Foundations of Algebra (MAT097). Topics in this course include polynomial arithmetic, introduction to functions, factoring, roots and radicals, rational expressions, absolute value inequalities, quadratic equations and the quadratic formula, and solving applied problems. This course does not satisfy degree requirements. Prerequisite: Grade of C or better in Foundations of Algebra (MAT097) or placement. Course may require an additional lab hour.	3
<b>MAT-100</b>	<b>Topics in Career Math</b>	This course applies basic arithmetic techniques to the following business topics: percentage, trade and cash discounts, merchandising, depreciation, simple and compound interest and present value. The course covers additional topics that faculty choose from taxes, payroll, statistics, insurance, notes and drafts, installment buying, checking accounts, inventories, costing out, and the metric system. This course is appropriate only for Associate in Science students in Culinary Arts. Prerequisite: Grade of C or better in Foundations of Mathematics (MAT093) or placement.	3

<b>MAT-133</b>	<b>Introduction to Metric System</b>	This course enables students to recognize and use metric terms, roughly measure using body parts, and use estimation within the metric system.	1
<b>MAT-171</b>	<b>Finite Mathematics</b>	Set theory, coordinate systems and graphs, matrices and linear systems, linear programming, and probability are considered in this course. Applications to business and the social sciences are emphasized. This course meets General Education "Quantitative Thought" Requirement Area 4. Prerequisite: Grade of C or better in Foundations of Algebra (MAT097).	3
<b>MAT-172</b>	<b>Contemporary Math I</b>	This course covers varied mathematical topics that have applications in contemporary society. Topics include number theory (divisibility, Fermat's Theorem, characterization of primes, Diophantine equations), mathematical systems (base n and modular arithmetic, groups, rings, fields), logic (simple and compound statements, conditionals, symbolic logic, truth tables), and patterns and symmetries (Fibonacci sequence, Golden Ratio, natural and artistic illustrations, fractals). The course encourages students to interpret, analyze, and evaluate from a mathematical perspective. The course meets General Education "Quantitative Thought" Requirement Area 4. Prerequisite: Grade of C or better in Foundations of Algebra (MAT097) or placement.	3
<b>MAT-173</b>	<b>Contemporary Math II</b>	This course covers varied mathematical topics that have applications in contemporary society. Topics include statistics (sampling, measures of central tendency, measures of variation, normal distribution, frequency distributions and histograms), graph theory (modeling, Eulerian and Hamiltonian graphs, directed graphs, optimization procedures), calculators (specialized functions, number patterns, use in problem-solving), consumer math (payroll, investments, financing, budgets) and computers (algorithms, flowcharts, application to the course's other topics). The course encourages students to interpret, analyze, and evaluate from a mathematical perspective. The course meets General Education "Quantitative Thought" Requirement Area 4. Prerequisite: Grade of C or better in Foundations of Algebra (MAT097) or placement.	3
<b>MAT-181</b>	<b>Statistics I</b>	This course covers statistical concepts and methods. Topics include data organization, averages and variation; elementary probability; binomial, normal, and t-distributions; estimation and hypothesis testing; and linear correlation and regression. The course meets General Education Quantitative Thought Requirement Area 4. Prerequisite: Grade of C or better in Foundations of Algebra (MAT097) or placement.	3

<b>MAT-193</b>	<b>Topics in Algebra/Trigonometry</b>	This course provides an intensive one-semester survey of topics in algebra and trigonometry. Topics include powers of ten, formulas, graphs, simultaneous equations, logarithms, right triangle trigonometry, vectors, sine waves, and complex numbers. Topics are illustrated by applications from electronics and other fields. Use of scientific calculator is required. Prerequisite: Placement or grade of C or better in Fundamentals of Algebra (MAT094).	3
<b>MAT-194</b>	<b>College Algebra for STEM</b>	This course is designed for science, technology, engineering, computer science, and mathematics students and provides a solid preparation for precalculus. The course covers systems of linear equations, matrices, partial fractions, linear programming, algebra of functions, quadratic equations, polynomials, rational and radical functions, complex numbers, exponential and logarithmic functions, maximum and minimum problems, symmetry, lines, conic sections, graphs of relations and functions, and applications. A graphing calculator is required for this course. This course meets General Education "Quantitative Thought" Requirement Area 4. Prerequisite: Grade C or better in Intermediate Algebra(MAT099)(a grade of B or better is recommended)or placement.	4
<b>MAT-197</b>	<b>Precalculus</b>	This course covers the following topics: functions and their graphs, polynomial functions, rational and radical functions, exponential and logarithmic functions, elements of trigonometry and trigonometric functions, analytic geometry, and sequence and series notation. Graphing calculator is required. Prerequisite: Grade of C or better in College Algebra-STEM (MAT194) or placement.	4
<b>MAT-231</b>	<b>Calculus for Management Science</b>	This one-semester course covers topics designed for students in business, economics, and the social sciences. Topics include limits, differentiation and integration of algebraic, exponential and logarithmic functions, optimization and other applications. Graphing calculator is required. Prerequisite: Grade of C or better in College Algebra for STEM (MAT194) or placement.	4
<b>MAT-281</b>	<b>Calculus I</b>	This course reviews concepts of functions, graphs and trigonometry to support the exploration of limits, derivatives, and basic integration. Topics will include limits, continuity, algebraic and trigonometric differentiation, applications of the derivative, the definite and indefinite integral, methods of integration, application of integration to determination of area, the Fundamental Theorem of Calculus and integration by substitution. Graphing calculator required. Prerequisite: Placement or grade of C or better in Precalculus (MAT197).	4

<b>MAT-282</b>	<b>Calculus II</b>	This course is a continuation of Calculus I (MAT281) and begins with a study of numerical integration. Techniques of integration are applied to the following topics: transcendental functions (including their derivatives), area of region between two curves, volume, integration by parts, trigonometric substitution, partial fractions, and improper integrals. Sequences and series are examined with an emphasis on determining convergence or divergence. Taylor and Maclaurin series will also be studied. Graphing Calculator is required. Prerequisite: Grade of C or better in Calculus I (MAT281) or placement.	4
<b>MAT-283</b>	<b>Calculus III</b>	This course is a continuation of Calculus II (MAT282) and includes plane curves, parametric equations, vectors, vector-valued functions, tangent and normal vectors, arc-length and curvature, functions of several variables, directional derivatives, gradients, extrema of functions of several variables, Lagrange multipliers, line integrals, Green's Theorem, surface integrals, the Divergence Theorem, Stokes' Theorem, and applications to physical sciences and engineering. Graphic Calculator is required. Prerequisite: Grade of C or better in Calculus II (MAT282) or placement.	4
<b>MAT-285</b>	<b>Ordinary Differential Equations</b>	This course will include first and higher order differential equations and applications, series solutions of differential equations, Laplace transforms, systems of linear first order differential equations and numerical solutions of ordinary differential equations. Emphasis will be placed on analytical techniques and engineering applications aided by the use of computer software. Material on linear systems will be incorporated. Prerequisite: Grade of C or better in Calculus II (MAT282).	4
<b>MAT-291</b>	<b>Linear Algebra</b>	This course will include linear systems of equations, matrix operations, determinants, linear dependency, vector spaces, linear transformations, eigenvalues and eigenvectors. Proofs by mathematical induction and contradiction will be incorporated. Emphasis will be placed on mathematical structure and axiomatic reasoning aided by the use of computer software. Pre/corequisite: Grade of C or better in Calculus I (MAT281).	4
<b>MAT-521</b>	<b>Pre-Statistics</b>	This course is designed as a substitute for MAT - 097, Foundations of Algebra for non-STEM students who will be taking MAT 181, Statistics I for their program requirements. Topics include being able to summarize and analyze data distributions both numerically and graphically. Evaluating linear equations while understanding the concepts of slope, intercepts, inequalities, correlation and regression will be discussed. The concept of probability and probability distributions will be introduced for both discrete and continuous variables. This course does not satisfy degree requirements. Prerequisite: Grade of C or better in Foundations of Mathematics (MAT 093) or placement.	3

<b>MIG-101</b>	<b>Introduction to Ultrasound</b>	This course provides introductory exposure to the field of diagnostic medical sonography. The history and development of the modality as well as relevant medical terminology and vocabulary will be presented. Other topics discussed include caring for patients across cultural lines, the role of a sonographer in the medical field, and the prevention of repetitive strain injuries. Prerequisite: Admittance into the Cardiac or General Sonography programs.	2
<b>MIG-105</b>	<b>Ultrasound Physics and Instrumentation</b>	This course provides students with the theory of ultrasound physics and instrumentation. Topics will include the characteristics of sound waves and the way in which ultrasound is utilized in imaging. Propagation of sound, attenuation and acoustic impedance as well as reflection and scattering will be discussed. Ultrasound equipment components, including transducer construction and recording devices will be covered in great detail. Doppler principles including color Doppler will be examined. Prerequisite: Admission in to the Cardiac or General Sonography Program.	3
<b>MIG-107</b>	<b>Introduction to Medical Radiography</b>	This course covers introductory exposure to the fields of medical radiography and ultrasound. The course covers the history of development of the two modalities, as well as an introduction to radiation protection. The importance of communication between the radiographer and the patient in a diverse environment will be stressed. Other topics will include legal and ethical issues in radiography and medical terminology. This will be a hybrid course, with a web-delivered component. Prerequisite: Admission to the Medical Radiography Program.	2
<b>MIG-109</b>	<b>Patient Care for Medical Imaging</b>	This lab course covers organization and standards of the medical establishment: basic patient care procedures including vital signs, safety, immobility, body mechanics, and medical asepsis; CPR; and basic EKG, oxygen administration, and venipuncture skills. The importance of communication between the radiographer and the patient will be stressed. Simulated laboratory sessions offer students an opportunity to return demonstrated techniques. Co-requisite: Introduction to Medical Radiography (MIG107) or Introduction to Ultrasound (MIG101).	4
<b>MIG-122</b>	<b>Positioning I</b>	This course covers basic principles of patient positioning as applied to medical radiography. The course provides both lecture and lab experiences to help students achieve competency in radiographic examination of the chest, abdomen, and upper and lower extremities. Co-requisite: Full-Time Medical Radiography Clinical I (MIG124F) or Part-Time Medical Radiography Clinical I (MIG124P).	3

<b>MIG-124F</b>	<b>FT Medical Radiography Clinical I</b>	This course introduces students to the hospital and its radiology department. The course centers activities on observation and assisting with various basic radiographic procedures. Students begin to develop competency in the performance of radiographic examinations of the chest, abdomen, and upper extremities. Additional expenses may include supplies, equipment, online tracking software, and/or uniforms. Course meets two (2) days/week with 16 hours of clinical practice weekly.	2
<b>MIG-161</b>	<b>Intro to Diagnostic Imaging and PACs</b>	Designed for students with previous experience in Medical Imaging or Computer Science who wish to pursue a career in PAC's administration, this course introduces the students to the history of medical imaging with a focus on state-of-the-art diagnostic imaging, the DICOM standard, and the clinical relevance of PACs to the members of the Radiology Department, referring physicians, the overall delivery of healthcare. For additional information and/or syllabus contact CITDepartment@bhcc.mass.edu. Prerequisite: Admission to PACs certificate program.	3
<b>MIG-201</b>	<b>Echo III</b>	This continuation course of Echo I and II covers advanced cardiac interpretation and echo features of coronary artery disease and valvular heart disease. Students discuss a basic overview of pediatric echo and congenital heart disease. The course reviews related echo material before placement in the clinical sites. Prerequisite: Echo II (MIG119).	4
<b>MIG-207</b>	<b>Ultrasound Physics and Instrumentation For the Cardiac Sonographer</b>	This course is a continuation of Ultrasound for the Cardiac Sonographer Physics and Instrumentation and is designed for the cardiac sonography student to integrate their knowledge of ultrasound physics and instrumentation with clinical practice of actually producing a high quality diagnostic image. Image quality will be stressed throughout this course through the use of hands-on applications in the ultrasound lab. Additional topics discussed will include: Spectral display, image artifacts, bioeffects and safety as well as discussions relating to 3D ultrasound and contrast agents. Prerequisite: Ultrasound Physics and Instrumentation (MIG105) and Echo II (MIG119).	2
<b>MIG-211</b>	<b>Cardiac Sonography Clinical I</b>	This course covers the development of students' skills in the performance of echocardiograms at the clinical sites. Under supervision of their clinical instructor and the BHCC clinical coordinator, students gain knowledge through scanning patients in the clinical setting. Students' performances are evaluated through clinical competencies in each related echo area. Additional expenses may include supplies, equipment, and/or uniforms. Course meets: three (3) days/week. Prerequisite: Echo II (MIG119). Co-requisite: Echo III (MIG201).	3

<b>MIG-220</b>	<b>Positioning III</b>	This course applies the fundamentals of Positioning I and II to advanced level radiographic examinations. Lecture and lab sessions cover anatomy and radiography of the skull, facial bones, and sinuses, TMJ, mastoids, and other advanced skull exams. The course provides an introduction to advanced exams including arthrograms and myelograms. Prerequisite: Positioning II (MIG126).	2
<b>MIG-222P</b>	<b>Part Time Medical Radiography Clin III</b>	This course allows students to expand upon skills developed during earlier clinical experience. Students assume more direct responsibility for specific radiographic examination. Additional expenses may include supplies, equipment, and/or uniforms. Course meets two (2) evenings/week, with 8 hours of clinical practice weekly. Prerequisite: Part-Time Medical Radiography Clinical II (MIG128P).	1
<b>MIG-224</b>	<b>Radiologic Technology II</b>	Using lecture and lab sessions, this course presents the x-ray circuit in form and function. Topics include, but are not limited to, characteristics of x-rays, wave-particle duality, x-ray production, target interactions, photon interactions with matter, digital and conventional fluoroscopy and electronic imaging units. Prerequisite: Imaging Technology I (MIG111).	3
<b>MIG-226</b>	<b>Radiologic Imaging II</b>	Using lecture and lab sessions, this course explores the concepts of quality assurance, quality control and film critique. Additional topics include but are not limited to: advance digital concepts, cardiovascular and interventional techniques, computers in imaging, and special radiographic procedures. Prerequisite: Radiographic Imaging I (MIG120).	3
<b>MIG-227</b>	<b>Pharmacology of Radiology</b>	This course is designed to provide basic concepts of pharmacology to the medical radiography student. Content includes chemical, generic and trade names for select drugs; pharmacokinetic and pharmacodynamics principles of select drugs; classification of drugs; action, effects, uses and side effects of select drugs on imaging procedures; categories of contrast agents; pharmacology of barium and iodine compounds; dose calculations for adult and pediatric patients; legal and ethical status of the radiographer's role in drug administration; and the radiographer's professional liability concerning drug administration. This course has a web-based component. Prerequisites: Patient Care for Medical Imaging (MIG109) and Anatomy and Physiology II/Lab (BIO204).	1
<b>MIG-228F</b>	<b>Full-Time Medical Radiography Clin V</b>	This course allows students to develop additional experience in the materials covered in Positioning I, Positioning II, and Positioning III, and further to expand their clinical skills. Additional expenses may include supplies, equipment, and/or uniforms. Course meets three (3) days/week with 24 hours of clinical practice weekly. Prerequisite: Full-time Medical Radiography Clinical III (MIG222F).	3

<b>MIG-230</b>	<b>Radiation Protection</b>	This course covers an overview of the effects of ionizing radiation on the human body and the protective measures available to minimize those effects. The course examines the effects that produce somatic as well as genetic changes. This course stresses methods of limiting and monitoring radiation exposure to personnel, patients, and the general population. Students gain a personal frame of reference regarding the importance of this issue today. Prerequisite: Radiologic Imaging II (MIG226) for day option only. Co-requisite: Radiologic Imaging II (MIG226) for evening option.	3
<b>MIG-234</b>	<b>CT/Cross Section Anatomy</b>	This course introduces students to CT (Computerized Axial Tomography) history, the development of CT equipment configuration, and the basic scanning protocols. The course exposes students to cross-sectional anatomy, which is necessary for proficiency in the areas of CT, Ultrasound and MRI. Prerequisite: Anatomy/Physiology II/Lab (BIO204).	2
<b>MLT-111</b>	<b>Intro to Clinical Laboratory Sciences I</b>	This course explores the nature and scope of clinical laboratory work. The primary focus will be on the role of the laboratory in delivery of health care in various settings, emphasizing historical background, types of health care facilities, regulatory agencies affecting laboratory operations, responsibilities, duties and professional conduct expected of clinical laboratory technicians, safety in the laboratory, laboratory mathematics and quality control. A phlebotomy workshop will develop the fundamental skills required to procure and prepare blood specimens for testing. A field trip will be scheduled to an area hospital laboratory. Prerequisite: Admission to CLS Program.	2
<b>MLT-112</b>	<b>Urinalysis</b>	This course explores the principles and procedures of the routine urinalysis as well as the normal and abnormal physiological functions of the renal system. The course consists of didactic sessions and laboratory sessions where normal and abnormal cellular constituents will be reviewed. Prerequisite: Admission to CLS Program.	2
<b>MLT-211</b>	<b>Hematology &amp; Hemostasis</b>	This course consists exploring the theory and practice of routine hematology. Topics include the collection and handling of clinical specimens, the origin, development, and function of human blood cells in health and disease, hemostasis, and coagulation, automation, and quality control. Routine hematology and coagulation testing will be emphasized. Prerequisite: Introduction to Clinical Laboratory Science (CLS111).	4

<b>MLT-212</b>	<b>Medical Microbiology &amp; Lab</b>	This course is a comprehensive study of both theory and practical aspects of clinical microbiology. Emphasis will be placed on the collection and handling of clinical specimens as well as the primary isolation and identification of the most frequently encountered bacterial, pathogenic to humans. Other topics discussed include antimicrobial chemotherapy and host resistance. Other organisms examined include fungi and parasites. This course is open only to admitted CLS students. Prerequisites: Introduction to Clinical Laboratory Science (MLT111) and Microbiology/Lab (BIO205).	4
<b>MLT-213</b>	<b>Immunology &amp; Serology</b>	This course introduces the theoretical principles of immunology which involve the structure, function and interactions of the immune system. The serological techniques useful in the diagnosis of many diseases will be reviewed and performed. Prerequisites: Introduction to Clinical Laboratory Science (MLT111).	4
<b>MLT-241</b>	<b>Immunoematology</b>	This course consists of the study of the genetic basis and immunological interaction of the mayor blood group antigens and antibodies. Topics will include compatibility testing, antibody screening and identification techniques, blood donation, transfusion therapy, record keeping, and quality control techniques. Prerequisite: Immunology & Serology (CLS213).	4
<b>MLT-242</b>	<b>Clinical Chemistry</b>	The primary focus of the course is the biochemical analysis of blood and body fluids in health and disease. Topics include routine manual and automated testing methods, electrophoresis, molecular techniques, safety practices and quality control. Prerequisites: Chemical Science II/Lab (CHM111) or Introduction to Inorganic Chemistry/Lab (CHM120), and Immunology & Serology (MLT213).	4
<b>MRC-111</b>	<b>MR Concepts I</b>	This interactive, web-based course begins with MR screening and safety, legal and ethical principles, patient assessment, monitoring and management and interpersonal communications. Other content includes infection control, MR instrumentation, fundamental principles, data manipulation and sequence parameters and options. Prerequisite: Acceptance into MR Certificate Program.	3
<b>MRC-211</b>	<b>MR Concepts II</b>	This interactive, web-based course presents MR imaging procedures of the head and neck, spine, thorax, abdomen, pelvis and musculoskeletal system, including protocol considerations, contrast and patient positioning. Other content includes but is not limited to sequence parameters, image quality, quality assurance and quality control. Prerequisite: MR Concept I (MRC111).	3
<b>MUS-113</b>	<b>Jazz Ensemble</b>	Designed for students with previous experience in music, this course concentrates on application of basic skills of reading, improvisation, and standard performance practices in the small jazz ensemble. Students must audition for admission. Students may repeat this course three times, earning 1 credit for each repetition.	3

<b>MUS-118</b>	<b>Music Appreciation I</b>	An introduction to the history and development of music, this course covers basic questions dealing with the roles of the listener, performer, and composer, as well as representative samples from the first music of the medieval era to the end of the classical era. The course explores music's relationship to historical events and other art forms of the periods. This course meets General Education "Humanities" Requirement Area 6.	3
<b>MUS-119</b>	<b>Music Appreciation II</b>	A continuation of the history and development of music, this course presents representative samples of music from the romantic era to the present. It explores music's relationship to historical events and other art forms of the periods. This course meets General Education "Humanities" Requirement Area 6. Prerequisite: Music Appreciation I (MUS118) or permission of the department chair.	3
<b>MUS-122</b>	<b>Foundations of Music</b>	This course covers the full spectrum of rhythm, intervals, scales, key signatures, chords, triads and sevenths, and cadences for beginning students. The course fosters ear training, note reading, some keyboarding application, and much creative activity.	3
<b>MUS-129</b>	<b>Rock &amp; Roll History</b>	Beginning with the roots of rock in the rockabilly and blues traditions, continuing through the classical rock of the 50's and 60's, this course covers all styles of rock, current and past. The course covers listening to and identifying specific idiosyncrasies of various performers that are central to the study. This course meets General Education "Humanities" Requirement Area 6.	3
<b>MUS-131</b>	<b>Piano I</b>	This course provides group instruction for the beginner in keyboard technique, including note reading, fundamentals of rhythm, intervals, chords and scales, and a variety of keyboard literature. Students' progress at their individual pace.	3
<b>MUS-151</b>	<b>Music in the United States</b>	A survey of musical practice in the United States from the earliest colonial period to the present, this course is designed to give the student an understanding of the richness of our country's musical heritage, both popular (vernacular) and classical (cultivated). Students listen to and discuss old and new music of many styles - folk, symphonic, rock, opera, religious, ethnic, jazz, and pop.	3
<b>MUS-157</b>	<b>Vocal Performance Workshop</b>	This is a workshop class that offers instruction in basic vocal skills. Instruction in these techniques will lead students to develop their ability to sing accurately and with confidence in any style. This class is open to anyone with a sincere interest in becoming a better singer, regardless of past vocal experience. Each class begins with a group warm-up session that leads to individual performances before the instructor and the rest of the class.	3
<b>MUS-159</b>	<b>Vocal Performance Workshop II</b>	A continuation of Vocal Performance I, this class offers additional instruction in vocal skills. Instructions in these techniques will further develop the student's ability to sing accurately and confidently in any style. Prerequisite: Vocal Performance Workshop I (MUS157).	3
<b>MUS-539</b>	<b>Music Technology and Recording</b>	This course is designed for the music student who	3

		desires to acquire digital music software skills. This course emphasizes the use of Logic Pro 10, an industry standard in digital recording, editing and mixing, which is a priceless skill to have in today's rapidly changing and competitive music industry. Topics of study include, digital music technology, music score writing and arranging, digital recording techniques, mastering concepts and performance. Prerequisite: Counterpoint and Harmonization (MUS135), Theory of Harmony (MUS123) or instructor's permission.	
<b>NHP-180</b>	<b>Medical Terminology</b>	This course provides instruction in the development of basic medical terminology. Competency in medical terminology promotes effective communication among members of the healthcare team.	3
<b>NUR-095</b>	<b>Success in Nursing</b>	This introductory course focuses on assisting students to adapt to the upcoming challenges in the nursing curriculum. The course emphasizes test-taking skills, study skills, critical thinking, learning styles, and therapeutic nurse-patient communication and beginning nursing concepts. The course is designed for nursing students accepted to the nursing program in the fall semester and those students planning to apply to the Nursing Program. Course meets: 3 hrs. lecture.	3
<b>NUR-099</b>	<b>Nursing Pathways</b>	This course is designed for students who are seeking readmission to the nursing program. This course will assist students in analyzing their study skills, and designing a path for successful completion of the nursing program. Topics include time management, stress reduction, adapting study skills, and test-taking techniques and practice. Students are encouraged to use introspection and critical thinking as they formulate a plan that will enable them to complete the nursing program and take the licensure exam after graduation. Computer software and small group work for problem solving in answering multiple-choice questions will be utilized.	2
<b>NUR-100</b>	<b>Drug Calculation</b>	This course covers the apothecary, metric, and household systems of weights and measures and is designed for students admitted to the Nursing Program. The course focuses on the computation of drug dosages for oral and parenteral medications. It emphasizes the applications of skills necessary to compute dosages for infants, children, and adults and the calculations of intravenous infusions and medications. Class meets: 1 hr. lecture. Prerequisite: Foundations of Algebra (MAT097) or placement.	1

<b>NUR-101</b>	<b>Health Assessment &amp; Basic Skills/Lab</b>	This course introduces students to basic health assessment of the adult client using the body systems approach. Students acquire hands on physical assessment skills and then transfer these skills to the clinical setting. Students also learn the basic nursing skills necessary to provide care to the whole person in the clinical setting. Additional expenses may include supplies, equipment, and/or uniforms. Course meets: 1 hr. lecture; 3 hrs. simulation lab. Prerequisites: Acceptance into the Nursing Program and Anatomy/Physiology I/Lab (BIO203), College Writing I (ENG111) and Drug Calculations (NUR100).	2
<b>NUR-111</b>	<b>Nursing I</b>	This course provides the foundation for the theory and practice of associate degree nursing. The concepts of optimal health, person, nurse, environment, and holistic nursing are introduced within the framework of health promotion, health restoration and health maintenance. The student is introduced to the critical thinking skills required for nursing practice. The student learns and begins to apply the nursing process in the promotion of health for adult clients using functional health patterns categories. Additional expenses may include supplies, equipment, and/or uniforms. Course meets: 5 hrs. lecture; 6 hrs. clinical practice in selected health care facilities. Prerequisite: Acceptance into the Nursing Program and Anatomy/Physiology I/Lab (BIO203), College Writing I (ENG111), and Drug Calculations (NUR100).	7
<b>NUR-112</b>	<b>Nursing II</b>	This course builds upon the concepts introduced in Nursing I (NUR111). Students apply the nursing process within the framework of health restoration, health maintenance, and health promotion in the care of adults with medical/surgical and mental health problems. Students use critical thinking skills to meet the health care needs of the adult client. Students also learn beginning acute care nursing skills necessary to provide care to the whole person. Additional expenses may include supplies, equipment, and/or uniforms. Class meets: 5 hrs. lecture; 3 hrs. simulation lab; 12 hrs. clinical practice in selected health care facilities. Prerequisites: Anatomy/Physiology II/Lab (BIO204), Health Assessment and Basic Skills/Lab (NUR101), Nursing I (NUR111), and Principles of Psychology (PSY101).	10
<b>NUR-211</b>	<b>Nursing III</b>	This course builds upon the concepts in NUR101, NUR111, and NUR112 and includes the nurses role in health promotion, health restoration, and health maintenance for the childbearing and childrearing family. Students use critical thinking skills in the application of the nursing process. Students provide nursing care to the childbearing family, and to children with physical and mental health problems. Additional expenses may include supplies, equipment, and/or uniforms. Class meets: 5 hrs. lecture; 12 hrs. clinical practice in selected health care facilities. Prerequisites: Microbiology/Lab (BIO205), Nursing II (NUR112), and Human Growth/Development (PSY113).	9

<b>NUR-212</b>	<b>Nursing IV</b>	This course builds on all previous courses focusing on health promotion, health restoration, and health maintenance for persons with complex health problems. Students apply the principles of delegation and leadership in the clinical setting. Students integrate critical thinking skills in the application of the nursing process and in clinical decision-making. Clinical practice includes hospital/health care facilities/community experiences, selected observations, and use of the computer lab. Course meets: 5 hrs. lecture; 12 hrs. clinical practice in selected health care facilities. Prerequisites: Nursing III (NUR211).	9
<b>NUR-213</b>	<b>Nursing Seminar</b>	This seminar focuses on current health care issues and the ethical, legal, and professional framework necessary for nursing practice. The course assists in the transition from student nurse to beginning practitioner. The course utilizes a variety of learning activities that promote critical thinking. The course explores topics such as conflict resolution, cultural competence, health care access, empowerment, and lifelong learning. Course meets: 1 hr. lecture. Prerequisite: Nursing III (NUR211).	1
<b>OIM-100</b>	<b>PC Keyboarding Techniques</b>	This is an introductory course in college keyboarding designed for students with little or no keyboarding proficiency as well as those looking to upgrade or refresh their skills. Learning to type properly has never been more important. Using state-of-the-art, hands-on, self-paced software, students proceed from basic lessons through accuracy and speed-building exercises designed to prepare them for careers requiring keyboarding proficiency. Taught through BHCC's on-line eCollege, students submit hands-on progress reports to the course instructor as they proceed through each lesson. Upon completion of this course, students will gain the skill and knowledge necessary to type accurately based on one (1) minute timings at a minimum of 20 words per minute with one (1) error or less. For additional information and/or a course syllabus, contact CITDepartment@bhcc.mass.edu.	1
<b>OIM-102</b>	<b>Medical Computer Applications</b>	This course includes keyboarding instruction with an emphasis on proper technique, speed building, and proofreading. Students learn the correct format for business letters, memorandums, business reports and medical documents. Students use the Internet for e-mail and job searches. In addition, they create a resume, reference sheet, and cover letter. Note: For Allied Health students or by permission of department chair.	3

<b>OIM-103</b>	<b>Microsoft Word I</b>	This course uses Microsoft Word and covers introductory and limited intermediate applications, including but not limited to font and paragraph settings, page setup, table format, headers and footers, page numbering in sections, footnotes, citations, bibliographies, mail merge and envelopes, spell check and thesaurus, and electronic forms. Students create documents commonly used within academic and business settings. Student develop correct keyboarding technique in order to meet the industry standard for speed and accuracy. Note: An exemption test is available through the Center for Self-Directed Learning each semester for students with previous keyboarding experience by contacting the Prior Learning Coordinator.	3
<b>OIM-106</b>	<b>Records and Information Management</b>	This course provides an introduction to records management, including alphabetic, subject, numeric and geographic filing guidelines, as well as storage media, space limitations, compliance and risk management, and disaster recovery. Students will complete hands-on projects using Outlook for customizing and flagging e-mail, using search folders, creating and using contacts/notes, scheduling meetings, and integrating Word merge functions using contacts. File management using Windows Explorer and business research using Internet Explorer are integrated with PowerPoint presentations to tie together all the various professional skills using a qualitative approach. Prerequisite: Keyboarding: Document Generation I (OIM101).Pre/co-requisite: Applications/Concepts (CIT110).	3
<b>OIM-115</b>	<b>Administrative Technology and Procedures</b>	This course introduces administrative skills vital for employment in business and industry, including telecommunications; mail and copy services; travel, meeting, and conference arrangements; teleworkers/virtual assistants; customer service; and job application techniques. The class develops problem solving, critical thinking, organizational skills, and interpersonal skills while emphasizing work ethics, teamwork, and cultural diversity. To enhance these skills, students work individually and in teams to conduct library and Internet research and give presentations in class. Personnel from area corporations may participate in class discussions. Pre/co-requisites: Keyboarding: Document Generation I (OIM101) and Applications/ Concepts (CIT110).	3

OIM-190	<b>Medical Information Management</b>	This course covers the medical environment and staff patient and staff scheduling medical documents and computerized medical applications, professional activities and travel arrangements for medical staff, health insurance, and HIPPA standards, and ICD and CPT coding. Students use a computerized patient accounting software application to enter patient information, diagnostic and procedure codes, schedule and revise patient and staff appointments, process insurance claims, enter financial transactions, and generate financial reports. Students complete individual team projects that include Internet research as well as a written and oral presentation on an issue related to medical office administration. Pre/co-requisite: Keyboarding: Document Generation I. (OIM101).	3
OIM-199	<b>Off &amp; Info Mgmt.: Technology on the Move</b>	Students explore career opportunities in medical, legal and executive administration fields. This course includes critical thinking and teamwork projects to help students develop the ability to give and receive constructive criticism in a supportive environment. Students complete individual and team projects that use Internet research and library resources. Based on research related to office and information management issues, they develop written and oral presentation skills. Time management, listening, note-taking, and test-taking skills are emphasized. Security issues, legal and ethical issues, and cultural diversity are covered. Current students, alumni, and business personnel will provide perspectives on how to succeed in academia and in the business world. Prerequisites: Writing Skills II (ENG095) or placement and Academic Reading (ESL098) or Reading Skills II (RDG095) or placement. Pre/co-requisite: Keyboarding: Document Generation I (OIM101). Co-requisite: Group Dynamics (PSY107). Note: This change will not affect PSY107 requirements.	3
OIM-200	<b>Introduction to Physicians' Billing</b>	This course presents the "revenue cycle" concept to students, which encompasses registration practices and the impact this process has on the billing function. The varied health care delivery systems and the history of the delivery of medical care are presented. The variety of prospective reimbursement systems on data collection, billing, and effective processes are defined and discussed. The principles of ICD and CPT coding, the management of data, and the constantly changing regulations of CMS and other external regulators is reviewed. Technicalities of managing all aspects of claims submission and denial are examined. The course is offered only in the evening. Pre/co-requisite: Medical Terminology (NHP180).	3

<b>PHL-101</b>	<b>Introduction to Philosophy</b>	This introductory course acquaints students with the philosophic method, the problems and living issues of philosophy, and the great philosophers. Prerequisites: Grade of C or better in Academic Reading III (ESL098) or Reading Skills II (RDG095) and Writing Skills II (ENG095); or exemption by placement testing.	3
<b>PHL-103</b>	<b>Ethics</b>	This course covers the major philosophical issues in normative ethics and moral philosophy. It covers discussions regarding philosophical views about what is morally right or wrong and the applications to the individual and society. This course emphasizes contemporary problems, issues, and value conflicts. Grade of C or better in Academic Reading III (ESL098) and Academic Writing III (ESL099) or Reading Skills I (RDG090) and Writing Skills I (ENG090), or exemption by placement testing.	3
<b>PHL-111</b>	<b>World Religions</b>	This course analyzes the beliefs and practices of major world religions, including Hinduism, Buddhism, Judaism, Christianity, and Islam. Through study of these religions, students compare the beliefs of various traditions and understand their values in an historical context. The course meets General Education "World View" Requirement Area 3. Prerequisites: Grade of C or better in Academic Reading III (ESL098) or Reading Skills II (RDG095) and Writing Skills II (ENG095); or exemption by placement testing.	3
<b>PHY-201</b>	<b>General Physics I/Lab</b>	This introductory course covers the principles of physics, using a problem-solving approach. Laws of motion, forces, work and energy, momentum and harmonic motion will be covered. For the biology student this course will provide him or her with an enhanced understanding of the physical aspects of living systems. Laboratory work will reinforce the understanding of physical concepts and promote the development of problem solving skills. This course satisfies the physics requirement of the AS Biological Science program. This course does not satisfy the physics requirement of the AA Chemical Science or Physics/Engineering concentrations or the AS Engineering program. Prerequisite: Grade of C or better in Precalculus (MAT197).	4
<b>PHY-202</b>	<b>General Physics II/Lab</b>	This continuation course of General Physics I/Lab (PHY201) covers the following topics: waves and sound, elasticity, fluids, heat, electricity, magnetism, electromagnetic radiation, light and optics and modern physics. As in General Physics I this course will continue to relate principles of physics to living systems. Laboratory work will further develop the student's skills in data collecting and analysis. This course satisfies the physics requirement of the AS Biological Science program. This course does not satisfy the physics requirement of the AA Chemical Science or Physics/Engineering concentrations or the physics requirement of the AS Engineering program. Prerequisite: Grade of C or better in General Physics I/Lab (PHY201).	4

<b>PHY-251</b>	<b>College Physics I/Lab</b>	This course is an introduction to some of the fundamental principles and concepts of physics, using a problem-solving approach. The topics considered include the basic equations of motion, Newton's laws and their applications, work, energy, momentum, rotational kinematics and dynamics, conservation laws, laws of universal gravitation, and simple harmonic and oscillatory motion. Course meets: 3 hrs. lecture; 3 hrs. lab. Prerequisite: Grade of C or better in Calculus I (MAT281).	4
<b>PHY-252</b>	<b>College Physics II/Lab</b>	In the first half of the course, this continuation of College Physics I (PHY251) covers the following topics: basic topics in electricity and magnetism, electromagnetic radiation, the nature of light, and optics. In the second half, the course covers an introduction to some basic ideas in modern physics. It also covers these additional topics: atomic structure, quantization, and nuclear physics. Course meets: 3 hrs. lecture; 3 hrs. lab. Prerequisite: College Physics I/Lab (PHY251). Pre/co-requisite: Grade of C or better in Calculus II (MAT282).	4
<b>PLG-101</b>	<b>Introduction to Law</b>	This course provides students with an understanding of the paralegal field. The course assists students to become familiar with all aspects of the legal system. The course emphasizes the role of the paralegal and the way that role complements that of the lawyer. The course explores the role of law in our society, the judicial system, contract law, tort law, equity, and criminal law. Prerequisites: Writing Skills II (ENG095), Reading Skills II (RDG095) or Academic Reading III (ESL098) or placement.	3
<b>PLG-102</b>	<b>Legal Research &amp; Writing</b>	This course covers an introduction to legal writing and proper use of legal terminology in developing and drafting a format for the legal memorandum, preparing briefs, and, in particular, formulating research skills. Prerequisite: Introduction to Law (PLG101).	3
<b>PLG-103</b>	<b>Litigation</b>	Litigation is a core function of many law firms. Students will learn the rules and requirements necessary to provide effective litigation support in a law office. Topics include the organization and jurisdiction of federal and state courts, the preparation of pleadings, motions, interrogatories, judicial notice, preparation and admission of evidence, subpoenas, depositions and trial notebooks, interviewing clients, trial and appellate procedures, the rules of evidence, and the preparation of cases for hearing or trial. The roles of arbitration, mediation, and negotiation will also be covered. Prerequisites: Introduction to Law (PLG101).	3

<b>PLG-104</b>	<b>Legal Ethics</b>	This course presents the major areas of legal ethics placing special and comprehensive emphasis on how the rules affect paralegals. It aids students in understanding how the legal profession is regulated generally and the impact that paralegals conduct has on the lawyers who employ them. Through case studies, geared specifically toward paralegals, demonstrations of the rules are introduced and applied. Prerequisite: Introduction to Law (PLG101).	3
<b>PLG-201</b>	<b>Family Law</b>	This course covers the laws concerning family relationship, marriage, cohabitation, adoption, divorce, child custody, support, alimony, and the effects of wills and probate. Prerequisite: Introduction to Law (PLG101).	3
<b>PLG-202</b>	<b>Business Organizations</b>	Choosing the proper form of business organization can mean the difference between success and failure. Many attorneys are involved in advising their commercial clients regarding the appropriate form of business. This course covers the rules and requirements to establish sole proprietorships, partnerships, limited partnerships, limited liability companies, limited liability partnerships, business trusts, corporations and joint ventures. Practical considerations include the preparation and management of the documents necessary for the organization and maintenance of each business entity. Corporate materials are reviewed, as are corporate characteristics, formation procedures, financial structure, meetings, dividends, share ownership, amendments, dissolution, and Massachusetts incorporation procedures. Prerequisite: Introduction to Law (PLG101).	3
<b>PLG-203</b>	<b>Real Estate Law</b>	This course thoroughly investigates the theory and practice of real estate transactions from the perspectives of both the buyer and the seller. The topics include examination of titles, estates in land, restrictions, easements, covenants, options, deeds, mortgages, and foreclosure proceedings. Prerequisites: Writing Skills II (ENG095), Reading Skills II (RDG095) or Academic Reading III (ESL098) or placement.	3
<b>PLG-299</b>	<b>Paralegal Internship</b>	An internship in Paralegal Studies is a hands-on learning experience at law firms, public agency, corporation, or other law related organizations, under the direct supervision of a legal professional. It is intended to provide students the opportunity to gain practical experience in their field of study. Students perform 150 hours of internship service over the course of 10-15 weeks, during the spring, fall, or summer semesters. Prerequisites: Completion of all PLG required courses. Pre/co-requisite: a cumulative grade point average of at least 3.0 in the program and approval of the paralegal faculty internship coordinator. Students meet bi-weekly with their advisor to prepare papers, work on related projects, and share experiences with other students. Students are responsible for following all guidelines in the BHCC Internship Handbook.	3
<b>PMT-103</b>	<b>Pharmacology for the Surgical</b>	This course provides the student with a	1

		basic foundation in pharmacology. This will help prepare the student to safely and appropriately prepare and manage operating room medications, solutions and specimens. This class is a lecture class and meets one hour per week for 15 weeks. Calculations involving fractions and decimals will be reviewed. Students will be introduced to common medical terminology and weights and measures used routinely in the measurement and administration of medications. Use and understanding of the metric system will be emphasized. Prerequisite: admission into the Surgical Technology Program	
<b>PMT-111</b>	<b>Pharmacy Practice for Pharmacy Technicians I</b>	This course provides the student with a perspective on the role of the pharmacy technician, the genesis of the regulations governing the pharmaceutical industry and the current status of federal and state laws which must be followed. Emphasis will be placed on handling controlled substances and related record keeping. The roles of the FDA in the drug approval process and post-marketing surveillance, and the DEA in the daily operation of the pharmacy will be discussed. Students will be introduced to common medical terminology and weights and measures used routinely in the practice of pharmacy. The metric system and conversions between the metric system and common household measures will be emphasized. Prerequisite: Writing Skills II (ENG095) or placement.	4
<b>PMT-112</b>	<b>Pharmacy Practice for Pharmacy Technicians II</b>	This course provides the student with the knowledge to be able to begin participation in prescription/order processing in a pharmacy. The course includes an introduction to drug formulation, pharmacy operations, third party billing and inventory control that are essential to working in a pharmacy. Calculations related to routine prescription processing and pharmacy management including calculation of days-supply, refill adjustment and inventory control are emphasized. A general introduction to biopharmaceutics and drug action will be provided. Prerequisite: Pharmacy Practice for Pharmacy Technicians I (PMT111).	4
<b>PMT-113</b>	<b>Pharmacy Practice for Pharmacy Technicians III</b>	This course provides the student with a basic introduction to the pharmacology of drugs in common use. The course will be taught by examining body systems, e.g. gastrointestinal, and will include discussion of the drugs commonly used in treating diseases affecting the system. Drugs will be discussed by grouping them into general classes and with important differences among group members being highlighted. The dosage, routes of administration, generic and trade names, common adverse reactions and important drug interactions will be emphasized. Calculation of patient dosage and patient days - supply will be used when appropriate. Prerequisite: Pharmacy Practice for Pharmacy Technicians II (PMT112).	4

<b>PMT-299</b>	<b>Pharmacy Practicum/Seminar</b>	This course combines group discussion in a seminar setting with an internship program based in a live pharmacy setting. The practicum and seminar are designed to give the student practical experience in the basic roles the technician fulfills in the pharmacy and to complete their preparation for transition to the workplace. The experience component encompasses the steps from customer service to prescription processing and prescription production. The shared learning experience in the weekly seminar will be used as a problem solving group discussion and to prepare the student to apply and compete for work. Prerequisites: Writing Skills II (ENG095) or placement.	4
<b>PNP-111</b>	<b>Practical Nursing I</b>	This course provides the foundation for theory and practice of practical nursing certificate. The concepts of optimal health, person, nurse, environment, and holistic nursing are introduced within the framework of health promotion, health restoration and health maintenance. The student is introduced to critical thinking skills required for the practical nurse. The student is introduced to vocational trends and issues in the practical nursing field. Additional expenses may include supplies, equipment and uniforms. Course meets 6 hours of lecture/lab 1-2 days per week and 6 hours of clinical practice at the college or at selected health care facilities. Prerequisite: acceptance into the Practical Nursing Certificate Program, Foundations of Algebra or placement testing (MAT097), College Writing (ENG 111), Anatomy & Physiology/Lab I (BIO203), Anatomy & Physiology/ Lab II (BIO204).	10
<b>PSY-101</b>	<b>Principles of Psychology</b>	This introductory psychology course covers a survey of information and theory. Topics include the brain and behavior, research methods, learning, consciousness, motivation, emotion, human growth and development, personality, abnormal behavior, and psychotherapy, social cognition and understanding. The course meets General Education "Individual and Society" Requirement Area 2. Prerequisite: Academic Reading III (ESL098) or Reading Skills II (RDG095) or co-enrollment in integrated courses, or exemption by placement testing.	3
<b>PSY-107</b>	<b>Group Dynamics</b>	Through class exercises and observation, this course explores the relationship between the theory and experience of effective groups. It examines comparisons of individual and group performance, group goals, problem solving, decision-making, conformity, norms, cohesiveness, and leadership. The course meets General Education Individual and Society Requirement Area 2. Co-requisite: For Office and Information Management majors, Office and Information Management: Technology on the Move (OIM199).	3

<b>PSY-131</b>	<b>Psychology of Popular Culture</b>	This course is designed to facilitate the development of critical thinking, reading, and writing skills through the psychological study of popular culture. Issues of social psychology, cross-cultural communication, identity development, creativity, violence, and psychological health will be analyzed in a variety of domains of popular culture. Psychological theory and analysis will be applied to youth culture, consumer culture, political campaigns, contemporary music and visual arts, tourism, stand-up comedy, advertising, and the internet. This course meets General Education "Individual and Society" Requirement Area 2.	3
<b>PSY-203</b>	<b>Psychology of Personal Adjustment</b>	This course explores the development and expression of the personality through an examination of processes by which the self-concept is formed. The course surveys the theories of behavioral scientists that have contributed to the study of adjustment. Scientific study of the effects of stress and stress management techniques are included in this curriculum. The course prepares students for advanced study in psychology and places emphasis on critical thinking skills, especially as applied to scientific research. Prerequisite: Grade of C or higher in Principles of Psychology (PSY101) or permission of instructor.	3
<b>PSY-209</b>	<b>Child Psychology</b>	This course examines the normal physical, cognitive and socio-emotional development of children from conception to age twelve. This course is to be used for meeting the requirements of the A.A. Psychology Concentration or for elective credit in other programs. However, this course may not be used to meet program requirements for degrees or certificates in the ECDev, EDU, or HSV programs. Students may not receive credit for both PSY209 and ECE103 to meet requirements for degrees or certificates for college graduation. Prerequisite: Grade of C or better in Principles of Psychology (PSY101).	3
<b>PSY-213</b>	<b>Human Growth and Development</b>	This course examines the theories of the biological, social, and psychological development of human beings throughout the life span. This course may be taken either as a prerequisite course for the pre-nursing program, or as an elective by non-Psychology majors. The course does not satisfy the requirements of the A.A. Psychology Concentration program. Prerequisite: Grade of C or better in Principles of Psychology (PSY101).	3

<b>PSY-215</b>	<b>Counseling</b>	This course explores theories and practices in counseling individuals and groups. It explores various theoretical approaches to counseling, and provides practical exercises in counseling. This course is restricted to those students enrolled in the Human Services, Education, Early Childhood, Psychology, or Sociology programs or by permission of the department chair of Education, Early Childhood, and Human Services or the department chair of Behavioral Sciences. Prerequisite: Grade of C or higher in Principles of Psychology (PSY101).	3
<b>PSY-219</b>	<b>Social Psychology</b>	This course covers the complex interrelationship between the individual, small groups, and the greater society. Topics include attitude formation and change, social conflict, prejudice, frustration, and cooperation versus competition and aggression. Prerequisite: Grade of C or higher in Principles of Psychology (PSY101).	3
<b>PSY-223</b>	<b>Personality</b>	This course covers distinctive patterns of behavior, including the thoughts and emotions that characterize individuals' adaptation to life. It examines four major approaches to the study of personality: psychoanalytic, behavioral, trait dispositional, and humanistic. Students study varying degrees of emphasis on processes or forces impinging on individuals' interaction with their environment. Prerequisite: Grade of C or higher in Principles of Psychology (PSY101).	3
<b>PSY-224</b>	<b>Adolescent &amp; Adult Development</b>	In this course, students study adolescents and adults in the areas of physical, intellectual and social changes, and their emotional growth and development during life stages of adolescence and adulthood. Prerequisite: Grade of C or higher in Principles of Psychology (PSY101).	3
<b>PSY-227</b>	<b>Abnormal Psychology</b>	This advanced course for the serious student of psychology covers the history of mental illness and its treatment, modern classification, diagnosis, the theoretical causes of disorders, and treatments. The range of psychopathology extends from the disorder-free person to adjustment reactions, anxiety disorders, personality disorders, and borderline disorders, to psychosis and major disorders. Prerequisite: Grade of C or higher in Principles of Psychology (PSY101) or permission of instructor.	3
<b>PSY-235</b>	<b>Introduction to Behavioral Research</b>	This course is an introduction to the ways of discovering, describing, and making warranted assertions about aspects of people and social life. The chief objectives are 1) to help students develop the skills and knowledge necessary to become intelligent critics of research in the behavioral and social sciences, and 2) to give them a rudimentary understanding of the design and evaluation of scientific research. Statistical material is treated in a conceptual manner. Prerequisite: Principles of Psychology (PSY101).	3
<b>PSY-521</b>	<b>Learning and Memory</b>	This course is an introduction to current views of behavioral change, learning, and remembering. The focus will be on concepts, theoretical issues, and applications of current research in the fields of behavioral and cognitive psychology. Prerequisite: Grade of C or better in Principles	3

		of Psychology (PSY101).	
<b>RDG-090</b>	<b>Reading Skills I</b>	This course develops basic reading skills necessary for success with college level material. The course will focus on improving comprehension and vocabulary. In particular, students will improve ability to recognize and articulate main ideas, supporting details, and patterns of organization. Students will also improve vocabulary skills using context clues and the dictionary. Note: Students must meet exit-level requirements or pass a departmental reading final in order to earn a passing grade of C in this course.	3
<b>RDG-095</b>	<b>Reading Skills II</b>	This course develops advanced reading skills necessary for success with college level material. The course will focus on achieving college level comprehension skills and vocabulary. In particular, students will recognize and articulate main ideas, supporting details, and patterns of organization. Students will develop critical reading and thinking skills and improve vocabulary. In addition, students will improve note-taking and test-taking skills. Note: Students must meet exit-level requirements or pass a departmental reading final in order to earn a passing grade of C in this course. Prerequisite: Grade of C or better in Reading Skills I (RDG090) or placement by examination.	3
<b>RUS-101</b>	<b>Elementary Russian I</b>	This course will introduce students to the Russian language and culture. The course focuses on useful vocabulary and basic concepts of grammar essential for leading simple conversations in everyday situations. The course offers a unique insight into the life of Russian people. Students will master the Cyrillic alphabet and major pronunciation rules necessary for reading in Russian. No prior knowledge of Russian is required.	3
<b>SCI-221</b>	<b>Interpretation and Presentation of Scientific Research</b>	This course will introduce students to the major aspects of formal scientific communication. Students will learn how to read scientific papers or posters, listen to conference presentations, search primary sources, write lab reports in the style of a scientific paper, and to present experimental results in both poster and oral presentation formats. Students will use assignments from previous science courses as the foundation for their own paper, poster and oral presentations. This course is recommended for all STEM majors and will provide students with the communication skills required for research internships. This course may be used as a career elective for all science and engineering programs. Course meets: 3 hour lecture. Prerequisites: Completion of at least two college-level science or engineering courses (BIO 195 or above, CHM 201 or above, PHY 201 or above, ENR 101 or above) or permission of instructor.	3

<b>SGT-105</b>	<b>Surgical Technology I</b>	This course covers an introduction to the profession of surgical technology. The course covers principles of aseptic technique, sterilization and disinfection, universal precautions, surgical equipment, and instrumentation in a coordinated class and simulated laboratory setting. An included seminar defines and develops a surgical conscience and professional demeanor. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	5
<b>SGT-109</b>	<b>Central Processing I</b>	This course covers an introduction to the profession of Central Processing. It introduces principles of microbiology, technical functions, and functional areas as applied to Central Processing. The course covers the process of infection and disease transmission. It also covers manual and mechanical decontamination and disinfection. Course meets: 2 hrs. lecture.	2
<b>SGT-109A</b>	<b>Central Processing I Clinical</b>	During clinical practice at local medical centers, students participate in corresponding central processing functions. A minimum of 90 hours of clinical is required. People working in central processing can apply for prior learning assessment credits.	2
<b>SOC-101</b>	<b>Principles of Sociology</b>	This course covers an introduction to the concepts and theories of society and social institutions. The course meets General Education 'Individual and Society' Requirement Area 2. Prerequisite: Academic Reading III (ESL098) or Reading Skills II (RDG095) or co-enrollment in integrated courses or exemption from reading requirement by placement testing.	3
<b>SOC-109</b>	<b>Cultural Anthropology</b>	This course demonstrates the way that the basic concepts and techniques developed by cultural anthropologists help us understand various cultures and intercultural relations. Through ethnographic readings and films, students learn about kinship, gender, ethnicity, religion, and social change in a variety of cultures. The course increases awareness of cultural dimensions of human experience and the diversity and flexibility of human cultures. The course meets General Education "Individual and Society" Requirement Area 2. Prerequisite: Academic Reading III (ESL098) or Reading Skills II (RDG095) or co-enrollment in integrated courses or exemption from reading requirement by placement testing.	3
<b>SOC-110</b>	<b>Physical Anthropology</b>	Presented in four basic sections, this course covers an introduction to the field of physical anthropology, genetics, human evolution, and evolution of behavior. Module topics include the background of physical anthropology; man in the natural world; practical genetics; classification within the human species; homo sapiens; homo erectus; the Australopithecines; evolution review; what was before man; evolution of behavior; where do we go from here? This course is offered through the Center for Self-Directed Learning only.	3

<b>SOC-203</b>	<b>Social Problems</b>	This course critically examines contemporary social problems by applying national and global sociological perspectives to the issues of poverty, racial and ethnic inequalities, sexuality, crime, and the environment. Students explore the systemic causes of social problems. How does a social problem become defined? What are the causes of various social problems? What can be done about them? Students may be expected to participate in service-learning projects in order to apply course materials to real world efforts to solve social problems. Prerequisites: Grade of C or better Principles of Sociology (SOC101) and College Writing I (ENG111).	3
<b>SOC-204</b>	<b>Sociology of Organizations</b>	This course will explore how social institutions are created and maintained. Their impact on individual and social lives will be analyzed. Concepts like bureaucracy, power, conflict, functionalism, and stratification will be discussed in detail. Some of the organizations to be focused upon include: education, government, economic organizations, health care, social services, sports, religion, the family, and communication/media. This course will empower students with concepts and skills that will help them to better understand how social structures work and interact with each other. An open systems approach will be used in this course. Prerequisites: Grade of C or better in Principles of Sociology (SOC101) and College Writing I (ENG111).	3
<b>SOC-205</b>	<b>Urban Sociology</b>	This course covers the problems of social issues of contemporary urban life. It covers individuals' responses to cultural, racial, political, institutional, educational, economic, and other challenges of city life. Prerequisite: Principles of Sociology (SOC101).	3
<b>SOC-206</b>	<b>Juvenile Delinquency</b>	The course analyzes the nature and types of juvenile behavior that violate the law. Students study issues such as socialization, deviant roles, social processes, the special attributes of youth, and historical attitudes toward childhood and adolescence. Topics include family juvenile court, correctional institutions, causes of delinquency, the female delinquent, and prevention and treatment of delinquency.	3
<b>SOC-207</b>	<b>Criminology</b>	This course examines various aspects of crime from the perspective of the sociologist. The course emphasizes social structure/social process theories of social disorganization and crime causation. Other topics include the history of criminology, the nature and extent of crime, the measurement of crime, criminal typologies, public order crime, victims, and victimization. Prerequisite: Principles of Psychology (PSY101) or Principles of Sociology (SOC101).	3

<b>SOC-211</b>	<b>The Family</b>	This course examines psychological and sociological factors related to the dynamics of family life. The course covers the process of the growth and adjustment of each family member as the family structure changes. Students discuss the historical, contemporary, and future family. Prerequisite: one introductory Behavioral Science course.	3
<b>SOC-227</b>	<b>Race, Class, and Gender</b>	This course explores issues of color, gender, class, and caste as they exist in contemporary American society. The impact of "hate" groups on American life and culture will be explored through the concept of "difference" and the ideas of superiority and inferiority. Topics to be discussed include racism, sexism, multiculturalism's and Eurocentrism. Prerequisite: Principles of Sociology (SOC101) or Principles of Psychology (PSY101) or Cultural Anthropology (SOC109).	3
<b>SOC-229</b>	<b>Sociology of Film</b>	This course deciphers the explicit and implicit message contained in films that has to do with the organization and structure of culture and society from the past to the present. The course covers the idea that, like all art forms, films are created in a social context and express a particular point of view through the characters, themes, motifs, and visual styles they embody.	3
<b>SON-113</b>	<b>Cross Sectional Anatomy</b>	This course focuses on detailed cross-sectional anatomy as it relates to sonographic imaging. This study of serial sectional anatomy helps sonographic students gain knowledge of the human body needed for the practical application of ultrasound. In class scanning will occur on a routine basis. Prerequisite: Admission to General Sonography Program. Co-requisite: Anatomy/Physiology/Lab II (BIO204).	4
<b>SON-213</b>	<b>Ultrasound Physics and Instrumentation for the General Sonographer</b>	This hybrid course presents Physics of Ultrasound for the General Sonographer and its applications to the performance and instrumentation used in the general sonographic practice. A review of the basic laws and instruments are also discussed as they relate to the specific topics of the Doppler effect, sonographic artifacts. Special emphasis is placed on bioeffects and safety in the performance of General Sonography. The advancements in sonographic applications and instrumentation such as harmonics, 3D are explored as well as the use of contrast agents; Review from Ultrasound Physics I is covered in the form of online assignments and testing. Prerequisite: Ultrasound Physics/ Instrumentation (MIG105). Corequisite: General Sonography Clinical III (SON223).	2

<b>SON-215</b>	<b>Advanced General Sonography I</b>	This hybrid course is a combination of classroom teaching and online learning experience. Course topics include a review of abdominal and subspecialty sonography. Interesting sonographic cases will be presented for review. Articles from the Journal of Ultrasound in Medicine and the Journal of Diagnostic Medical Sonography will be reviewed and discussed. Registry practice exams will be taken online on a regular basis. Prerequisite: Abdominal Ultrasound (SON115). Co-requisite: General Sonography Clinical III (SON223).	2
<b>SON-219</b>	<b>Obstetrical/Gynecological Sonography I</b>	This course familiarizes the student with interpretation of normal sonographic findings of gynecological and first, second and third trimester sonography. All measurement techniques including gestational dating will be discussed. Abnormal sonographic findings as they relate to gynecology and the first trimester will be covered. Related scanning techniques and associated Color Flow and Doppler are described. Sonographic/medical terminology, pathophysiology, clinical presentation and associated laboratory findings as they relate to gynecology and the first trimester will be covered. Prerequisite: General Sonography Clinical II (SON123). Co-requisite: General Sonography Clinical III (SON223).	3
<b>SON-223</b>	<b>General Sonography Clinical III</b>	This course is the hands on application of ultrasound in the hospital setting. Scanning skills are developed during this clinical. Students will be performing supervised ultrasounds and present daily cases to sonographers and or physicians. Students will become acquainted with the responsibilities needed to work in the ultrasound setting. Clinical will take place 3 days a week. Prerequisite: General Sonography Clinical II (SON123). Co-requisites: Obstetrical and Gynecological Sonography I (SON219), Advanced General Sonography (SON215), and Diagnostic Instrumentation (SON213).	3
<b>SPN-101</b>	<b>Elementary Spanish I</b>	This course, for students with little or no previous knowledge of Spanish, covers an introduction to the sounds and structures of Spanish and the development of basic skills needed for understanding and speaking Spanish. The course is not intended for native speakers or for students who have studied this language within the last three years.	3
<b>SPM-101</b>	<b>Principles of Sport Management</b>	This course examines the issues of management and organizational behavior within the context of the sports industry. Students will gain a comprehensive view of the procedures and operations of sports organizations and enterprises and will examine processes such as budgeting, marketing, event management, and labor relations that are necessary for the successful administration of these organizations. The Principles of Sport Management course is designed for individuals with interests in careers that combine management skills and knowledge of the sports industry. Prerequisites: Introduction to Business (BUS101).	3

<b>SPN-102</b>	<b>Elementary Spanish II</b>	This continuation course of Elementary Spanish I (SPN101) emphasizes conversational skills and simple readings. The course meets General Education "Humanities" Requirement Area 6. Prerequisite: Elementary Spanish I (SPN101) or one year of high school Spanish.	3
<b>SPN-201</b>	<b>Intermediate Spanish I</b>	This course covers a review of basic language skills and emphasizes conversational and reading skills. Prerequisite: Elementary Spanish II (SPN102) or two years of high school Spanish or permission of instructor.	3
<b>SPN-202</b>	<b>Intermediate Spanish II</b>	This continuation course of Intermediate Spanish I (SPN201), emphasizes self-expression through speaking, reading, and writing. Prerequisite: Intermediate Spanish I (SPN201) or three years of high school Spanish or permission of instructor.	3
<b>SPN-515</b>	<b>Advanced Spanish I</b>	This course is a reading, conversation and grammar review for Heritage Speakers and students with advanced knowledge of Spanish. This course provides an excellent opportunity for students to practice and develop advanced speaking, reading and writing skills in Spanish while learning about the culture of the Spanish speaking countries. The class will also include grammar review and the reading and class discussions of short stories and articles on current issues. Recommended: Contact instructor at rcelis@bhcc.mass.edu for appropriate level placement.	3
<b>THE-107</b>	<b>Acting I</b>	This course covers a total approach to the actor's art and stresses the use of body and voice. It includes improvisation, theater games, and sensory exercises with eventual involvement in scene study and character development. This course meets General Education "Humanities" Requirement Area 6.	3
<b>THE-115</b>	<b>Playwriting</b>	This course introduces students to various approaches to writing for the stage. Components of playwriting, which include narrative, structure, plot, character, dialogue, and setting, as well as the concept of "theatre" will be explored. Through reading and discussion of short works by a selection of playwrights, students will garner a sense of the development of playwriting while also being exposed to various playwriting genres. During the semester, students will create short works for the stage. Weekly writing exercises will be shared and discussed in class.	3
<b>THE-509</b>	<b>Actors Workshop</b>	This course introduces an ensemble-based acting approach for students. Drawing upon fundamentals taught in Acting I, this workshop class employs an unconventional or non-traditional approach to theatre that leads to the creation of a group project. This is not a class for "talking heads", as it will not rely on a traditional theatre script. Students who sign up for the course must be flexible and open to a group approach that involves physical movement, vocalization, and interaction. Prerequisite: Acting I (THE107) or other theatre training as approved by the instructor upon an interview.	3

<b>VMA-100</b>	<b>VMA Freshman Seminar</b>	This interdisciplinary course builds a connection to the aesthetic, historical and intellectual aspects of an artist community and creative work while helping students navigate through some of the logistical hurdles of the first year experience. Students participate in a variety of group activities, discussions and presentations with faculty and visiting artists. Field trips include local galleries/studios and museums. A journal/sketchbook is required. The course is required for all Visual and Media Arts majors. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3
<b>VMA-102</b>	<b>Visual Design: Composition and Color</b>	This course introduces the student to elements and principals of design that are fundamental to all fields of visual art. Within the context of 2-dimensional problem solving, students will develop a working vocabulary of visual elements including line, form, space, and color, in order to explore the expression of principles of composition such as balance, rhythm, emphasis, and proportion. Students will experience working with a variety of mediums and begin to develop skills in both visual thinking and craftsmanship. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3
<b>VMA-103</b>	<b>Visual Design: Form and time</b>	This course introduces the student to the fundamental elements and principles of design within the context of 3-dimensional form and time, both essential to the understanding of 2D and sequential art and design. Working with a variety of materials students will explore the fundamentals of scale, volume, space and light in 3 dimensions. Through exploring sequence and visual narrative, students will be introduced to the fundamentals of viewer experience in time. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	
<b>VMA-104</b>	<b>Drawing I</b>	An introductory studio course designed to examine basic vocabulary and drawing skills and concepts. Using a wide range of drawing media, students work primarily from observation mastering the concepts of objective drawing. While concentrating on the formal visual elements: line, shape, value, texture and (limited) color, students explore such concepts as figure/ground, scale, positive and negative space, proportion, perspective, volume, light, compositional issues and pictorial unity. There is an emphasis on writing and communication skills for mastery of basic vocabulary, and process of evaluation and critique. This course meets General Education "Humanities" Requirement Area 6. Prerequisite: Writing Skills II (ENG095).	3

<b>VMA-105</b>	<b>Digital Imaging With Photoshop</b>	The Adobe Photoshop workspace reflects the technical basis of the digital image. Understanding the structure of this important application enables the student to systematically build confidence and skill in its use, and also apply its principles in related applications. This course surveys the breadth and depth of the Photoshop workspace and toolset through lecture presentations and lab exercises. An overview of the digital imaging workflow will be presented, with emphasis on image processing. Students must have basic computer literacy. Prerequisite: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3
<b>VMA-111</b>	<b>Introduction to Mass Media</b>	This course covers an overview of the history and theory of mass media, including print, radio, television, the Internet, movies, advertising and public relations. The course covers general concepts of mass media, the media industries, and practical methods to analyze and understand the influence of the mass media on social, cultural, and political life, not only in the United States, but also around the globe. In addition, the course looks at ways individuals themselves can influence the media. The course meets General Education World View Requirement Area 3. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3
<b>VMA-112</b>	<b>Art History: Prehistoric to Medieval</b>	The course is a broad multicultural survey of the art and architecture of Egypt, Rome, Greece, the Near, Mid, and Far East, and Europe, from the Paleolithic Era through the Moyen Age. The course stresses the understanding of art through examining visual concepts such as composition, space, rhythm, symmetry, perspective, and subject matter, as well as its social, political, and cultural contexts. Students will experience and analyze works of art through lectures, written assignments, journal entries, identification and essay exams, presentations, group projects, and visits to museums. The course meets General Education "Humanities" Requirement Area 6. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3
<b>VMA-113</b>	<b>Art History: Renaissance-Contemporary</b>	This course is a broad multicultural survey of art and architecture from the Early Renaissance through contemporary times. Major movements in both Western and non-Western traditions are covered. The course stresses the understanding of art through examining visual concepts such as composition, space, rhythm, symmetry, perspective, and subject matter, as well as its social, political and cultural contexts. Students will experience and analyze works of art through lectures, written assignments, journal entries, identification and essay exams, presentations, group projects, and visits to museums. The course meets General Education "Humanities" Requirement Area 6. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3

<b>VMA-114</b>	<b>History of Graphic Design</b>	This course critically investigates and explores graphic design and visual communication history, major movements and pivotal artists and designers. This course requires participation of students in lecture and presentation, writing and studio projects, which will build critical thinking and visual skills. The course provides a necessary historical basis for students in the Graphic Design Program in the Visual & Media Arts Department. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3
<b>VMA-122</b>	<b>Painting I</b>	This course instructs students in the painting medium of acrylic and/or oil paint. The course places emphasis on drawing, composition, color, value, and paint quality. Students acquire basic skills in painting from observation. Class time includes one-on-one instruction and group critiques. The course meets General Education Humanities Requirement Area 6. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3
<b>VMA-123</b>	<b>Water Color I</b>	An introduction to the medium of watercolor paint, this course demonstrates and explores basic techniques such as wet-on-dry, wet-on-wet, and washes. Students draw from observation and learn to manipulate value, tone, and color. Class time includes one-on-one instruction and group critiques. The course meets General Education Humanities Requirement Area 6. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3
<b>VMA-124</b>	<b>Printmaking I</b>	An introduction to a variety of printmaking processes, this course includes woodcut, monotype, engraving and dry point. The course encourages experimentation in a self-motivated workshop environment. Class time includes one-on-one instruction and group critiques. Some drawing experience is desirable, although not required. The course meets General Education "Humanities" Requirement Area 6. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT092).	3
<b>VMA-131</b>	<b>Digital Publishing with InDesign</b>	This course introduces students to the fundamental knowledge required to operate Macintosh computers for use in digital publishing. Students become computer literate by learning the basic principles of digital publishing. Through an introduction to the word processing program Microsoft Word and the page layout program InDesign, students are directed in the production of documents that require the application of those principles. Students are also exposed to Adobe Illustrator and Adobe Photoshop as they are used in conjunction with Adobe InDesign. Students without previous computer experience are encouraged to take Applications/ Concepts (CIT110). Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3

<b>VMA-132</b>	<b>Typography</b>	This course examines the theory and practice of typographic principles. Students undertake creative projects in typographic composition. The course considers both effectiveness and aesthetic value of the composition. The course is required of all first year graphic arts students. (Fall semester only.) Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3
<b>VMA-151</b>	<b>Introduction to Audio Technology</b>	This course will provide the student with the basic knowledge and skills required for audio production. Through lectures and hands-on lab work, students will learn the technical and aesthetic aspects of microphones, tape decks, and mixing consoles. Both digital and analog production media will be covered, with greater emphasis on the digital realm. In addition to technical abilities, students will also examine the nature of the acoustic environment, and will be introduced to digital audio editing software. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3
<b>VMA-161</b>	<b>Introduction to Digital Photography</b>	Digital photography has made it technically possible to generate countless photographs at virtually no cost, yet the formal problems of picture-making remain. How is it possible to create photographs with power and significance? This course explores basic technical issues of the digital photography workflow joined with a formal exploration of seeing photographically, using both shooting assignments and lab exercises. Examples from the photographic tradition will be examined. Adobe Photoshop is used to adjust and manipulate images for printing. Inkjet printers are used to create photographic quality output. Students must have a digital camera and basic computer literacy. This course fulfills General Education Humanities Requirement Area 6. Prerequisites: Writing Skills II (ENG095) and Foundations of Mathematics (MAT093).	3
<b>VMA-207</b>	<b>Figure Drawing</b>	Students draw from the model as a means of understanding form, shape, and line gaining experience with a variety of drawing media. Figure Drawing emphasizes shorter poses as training in immediate response to gesture and form. This course serves as a requirement and preparation for intermediate level and concept-based studio courses such as Ideas in Art: Fine Arts Studio, Observational Drawing, and Multi-Level Studio classes. Prerequisite: Drawing I (VMA104).	3
<b>VMA-221</b>	<b>Painting I for Fine Arts</b>	This course introduces students to the fundamentals of painting with heavy body paints and mediums. Working from observation students will gain the basic skills necessary to control the value, color, texture and composition of the paintings they create. They will develop visual problem solving skills and critical vocabulary through group critiques and individual meetings. This course will leave them with a basic understanding of how to build a personalized, sustainable painting practice. Prerequisite: Drawing I (VMA104).	3

VMA-225	<b>Painting II for Fine Arts</b>	This studio course provides intermediate instruction to students that possess the basic painting skill set framed by Painting 2. Through observational painting students will continue to increase their facility with the heavy body paints while learning more advanced techniques. This course also serves as an introduction to portraiture and figure painting while providing them with a framework to begin experimenting with personal aesthetics (style). They will exercise their visual problem solving skills and increase their critical vocabulary through group critiques and individual meetings. This course will help them begin building their own sustainable painting practice. Prerequisite: Painting I for Fine Arts (VMA221).	3
VMA-227	<b>Ideas in Art: Fine Arts Studio</b>	What topic should my artwork discuss? How should this project manifest? Why am I making this? These questions comprise the three basic considerations that inform an artwork's concept; the Subject ("the what" or the topic), Form ("the how" or the format) and the Content ("the why" or the artist's intention). Ideas in Art students will explore how to successfully apply these essential conceptual considerations to a creative practice. Students will examine their own motives while investigating broader topics introduced through readings, writings and workshops. Studio art projects encourage the evolution of personal style as students gain exposure to an array of contemporary and historical conceptual frameworks. Students will exercise conceptual and visual problem solving skills through group critiques and individual meetings. This course will help students begin building a visually and conceptually enriched art practice. Prerequisite: Figure Drawing (VMA204) or Painting I for Fine Arts (VMA222).	3
VMA-226	<b>Observational Drawing</b>	This course provides students with intermediate to advance instruction in drawing from direct observation. Working from life students will master the relationship between value, form, and space while experimenting with various drawing materials, implements, techniques and strategies. Through group critiques and individual meetings they will exercise their visual problem solving skills and increase their critical vocabulary. This course will provide the necessary foundation upon which to build a sustainable drawing practice. Prerequisite: Figure Drawing (VMA204).	3
VMA-231	<b>Digital Illustration with Illustrator</b>	This course explores the use of the computer as a design tool. Instruction emphasizes the mastery of fundamental computer functions and software operations. It prepares graphic design students in computer software and technology used in graphic design. Students explore the creative potential, solve design and layout problems, and exhibit an understanding of the professional requirements of document preparation and production. The course uses Adobe InDesign and Adobe Illustrator software. Prerequisite: Digital Publishing with InDesign (VMA131).	3

<b>VMA-232</b>	<b>Design Communication I</b>	This course explores the use of the computer as a design tool. Instruction emphasizes the mastery of fundamental computer functions and software operations. It prepares graphic design students in computer software and technology used in graphic design. Students explore the creative potential, solve design and layout problems, and exhibit an understanding of the professional requirements of document preparation and production. The course uses Adobe InDesign and Adobe Illustrator software. Prerequisite: Introduction to Desktop Publishing (VMA131).	3
<b>VMA-241</b>	<b>Advanced Video Production</b>	This course focuses on development of the skills and concepts necessary for digital video production. Students learn the advanced use of the HDV digital camcorder microphones, the field audio mixer and lighting techniques. The course uses images and materials acquired in the course in its co-requisite class, Video Post-Production (VMA242), in order to complete a final project counting for both courses. Topics covered include fiction and non-fiction production techniques, including research, script development and interviewing. Discussion of theoretical issues in applied media aesthetics will be an integral and essential part of the class. Prerequisite: Elements of Video Production (VMA141) or permission of instructor. Co-requisite: Video Post Production (VMA242).	3
<b>VMA-242</b>	<b>Video Post-Production</b>	This course delivers an intensive workshop in digital nonlinear post-production software, theory and techniques. Students work in-depth with Final Cut Pro and will also explore other aspects of the Final Cut Studio package, including Live Type, Soundworks Pro and Motion. The course also provides a solid foundation in the theory and aesthetics of film and video editing by examining the history and development of the editing process. The course uses images and materials acquired in its co-requisite course, Advanced Video Production (VMA241) in order to complete a Final Project counting for both courses. Prerequisite: Elements of Video Production (VMA141) or permission of instructor. Co-requisite: Advanced Video Production (VMA241).	3
<b>VMA-244</b>	<b>Media Project Planning</b>	This course is an intensive survey of all aspects of pre-production planning for video and multimedia productions. Special emphasis is given to the process of writing for the media, including idea development, preparation of proposals, treatments, storyboards and scripts that clearly define message, intent and audience. A variety of storytelling methods and approaches to the creative process will be explored, including the dramatic, educational, corporate and documentary formats. In addition, the fundamentals of production management will be presented, including script breakdown, production scheduling, resource planning, and budgeting. Students will be expected to utilize skills gained in this class in subsequent media production classes. Prerequisite: Elements of Video Production (VMA141).	3
<b>VMA-503</b>	<b>Video for Social Media</b>	Learn how to powerfully communicate your message	3

		for the condensed format of social media. In this course students will create their own professional quality video for actual distribution. We will cover camera technique using DSLRs, sound recording, effective planning, creative editing, and publication to the web. Prerequisite: Writing Skills II (ENG095) or placement into College Writing I (ENG111). This course may substitute for Elements/Video Production (VMA141) for Media Communications majors.	
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**AFFIRMATIVE ACTION and EQUAL OPPORTUNITY POLICY**

Bunker Hill Community College is an affirmative action/equal opportunity institution and does not discriminate on the basis of race, creed, religion, color, sex, sexual orientation, gender identity, age, disability, genetic information, maternity leave, and national origin in its education programs or employment pursuant to Massachusetts General Laws, Chapter 151B and 151C, Titles VI and VII, Civil Rights Act of 1964; Title IX, Education Amendments of 1972; Section 504, Rehabilitation Act of 1973; Americans with Disabilities Act, and regulations promulgated thereunder, 34 C.F.R. Part 100 (Title VI), Part 106 (Title IX) and Part 104 (Section 504). All inquiries concerning application of the above should be directed to Thomas L. Saltonstall, Director of Diversity and Inclusion, Affirmative Action Officer, and Coordinator of Title IX and Section 504, at 250 New Rutherford Avenue, Room E236F, Boston, MA 02129, by calling 617-228-3311 or via email at [tsalton@bhcc.mass.edu](mailto:tsalton@bhcc.mass.edu).

When a student or employee believes s/he has been discriminated against based on race, creed, religion, color, national origin, age, sex, gender identity, genetic information, maternity leave, sexual orientation or disability status, the College's Affirmative Action Plan provides an informal complaint process and a formal complaint process which may be accessed by any member of the College community. Whether a complaint/grievance is formal or informal, the College will conduct a prompt, thorough, fair and objective investigation, and will take such corrective action as is appropriate under the circumstances. No student or employee shall be retaliated against for filing a discrimination complaint/grievance or for cooperating with the College's investigation thereof.

For more information, to file a complaint/grievance, or for a copy of the plan and/or complaint/grievance procedure, contact Thomas L. Saltonstall, the College's Affirmative Action Officer at 617-228-3311.